



14

Planning Commission Staff Report

TO: PLANNING COMMISSION

FROM: ASHLEE MACDONALD, AICP, SENIOR PLANNER *Am*
(480) 503-6748, ASHLEE.MACDONALD@GILBERTAZ.GOV

THROUGH: EVA CUTRO, AICP, PLANNING MANAGER *EC*
(480) 503-6782, EVA.CUTRO@GILBERTAZ.GOV

MEETING DATE: JULY 1, 2020

SUBJECT: Z20-03 TRILOGY AT POWER RANCH: REQUEST TO AMEND ORDINANCE NO. 1450 TO AMEND THE CONDITIONS OF DEVELOPMENT WITHIN THE TRILOGY AT POWER RANCH PLANNED AREA DEVELOPMENT (PAD) FOR APPROX. 5.74 ACRES LOCATED AT 4369 E. VILLAGE PARKWAY AND ZONED PUBLIC FACILITIES/INSTITUTIONAL (PF/I) ZONING DISTRICT WITH A PAD.

STRATEGIC INITIATIVE: Exceptional Built Environment

To allow for the redevelopment of recreational facilities within the Trilogy at Power Ranch community

RECOMMENDED MOTION

For the reasons set forth in the staff report, move to recommend approval to the Town Council for Z20-03, as requested, subject to the listed conditions.

APPLICANT

Company: Withey Morris, PLC
Name: Adam Baugh
Address: 2525 E. Biltmore Cir. Ste A-212

OWNER

Company: Trilogy at Power Ranch
Name: Ian Welsh
Address: 4369 E. Village Parkway

Phoenix, AZ 85016
Phone: 602-230-0600
Email: adam@witheymorris.com

Gilbert, AZ 85298
Phone: 480-279-2051
Email: ian@tprcoa.com

BACKGROUND/DISCUSSION

History

| Date | Description |
|-------------------------|---|
| <i>February 5, 1985</i> | Town Council approved A85-02 annexing the subject site into the Town. |
| <i>July 22, 1997</i> | Town Council approved Z96-30 (Ord. 1048) rezoning the subject site and creating the Power Ranch PAD. |
| <i>March 2, 1999</i> | Town Council approved Z98-36 (Ord. No. 1156) amending the Power Ranch PAD by rezoning portions of the Power Ranch PAD and modifying the Golf/Open Space land use. |
| <i>July 20, 1999</i> | Town Council approved Z99-08 (Ord. No. 1187) amending the Power Ranch PAD by rezoning portions of the Power Ranch PAD and amending certain development standards within various residential zoning districts. |
| <i>June 20, 2000</i> | Town Council approved Z00-07 (Ord. No. 1284) amending the Power Ranch PAD by adding 31.6 acres to the PAD, rezoning property within the PAD and modifying development standards within the R-TH zoning district |
| <i>January 21, 2003</i> | Town Council approved Z02-21 (Ord. No. 1450) amending development standards within the Power Ranch PAD and consolidating all previous Power Ranch PAD ordinances. |
| <i>June 3, 2020</i> | Planning Commission reviewed Z20-03 and DR19-128 as a study session item. |

Overview

The subject site is part of the Power Ranch PAD that was initially established in 1997 with numerous amendments made as the Power Ranch master planned community developed. Trilogy at Power Ranch is a portion of the overall Power Ranch PAD located south of Queen Creek Road. Trilogy at Power Ranch is a gated active adult community that includes a golf course and a community clubhouse with a variety of amenities. The site is accessed via Ranch House Parkway.

A Design Review Amendment (DR19-128) is also currently in review and will be brought forward to the Planning Commission at a later date.

Surrounding Land Use & Zoning Designations:

| | Existing Land Use Classification | Existing Zoning | Existing Use |
|-------|-------------------------------------|--|-----------------------------------|
| North | Residential >3.5-5 DU/Acre | Single Family – 6 (SF-6/PAD) | E. Village Pkwy then residential |
| South | Public Facilities/ Institutional | Public Facilities/ Institutional (PF/I/PAD) | Trilogy clubhouse and parking lot |
| East | Residential >3.5-5 DU/Acre | Single Family – 6 (SF-6/PAD) | Residential |
| West | Residential >3.5-5 DU/Acre | Single Family – 6 (SF-6/PAD) | Residential |
| Site | Golf Course | Public Facilities/ Institutional (PF/I/PAD) | Sport courts |

General Plan

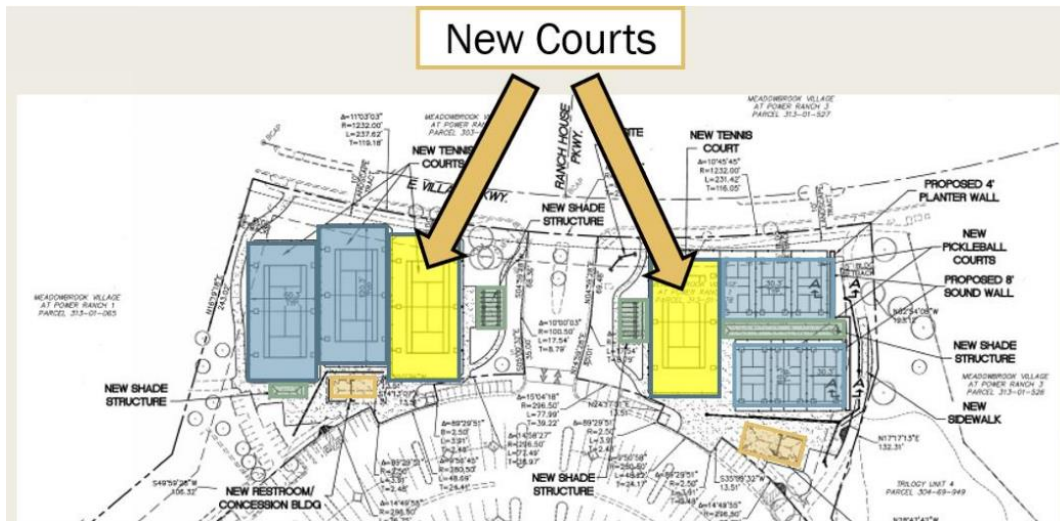
The proposed PAD amendment is consistent with the existing General Plan designation and no amendment to the General Plan Land Use map is proposed. The proposed amendment is consistent with the following General Plan goals and policies:

Chapter 4: Parks, Open Space, Trails, Recreation, Arts and Culture, Goal 1.0: Continue to enhance the quality of life for Gilbert residents by providing quality recreational and cultural opportunities. The proposed PAD amendment would aid in the addition of recreational opportunities for the community.

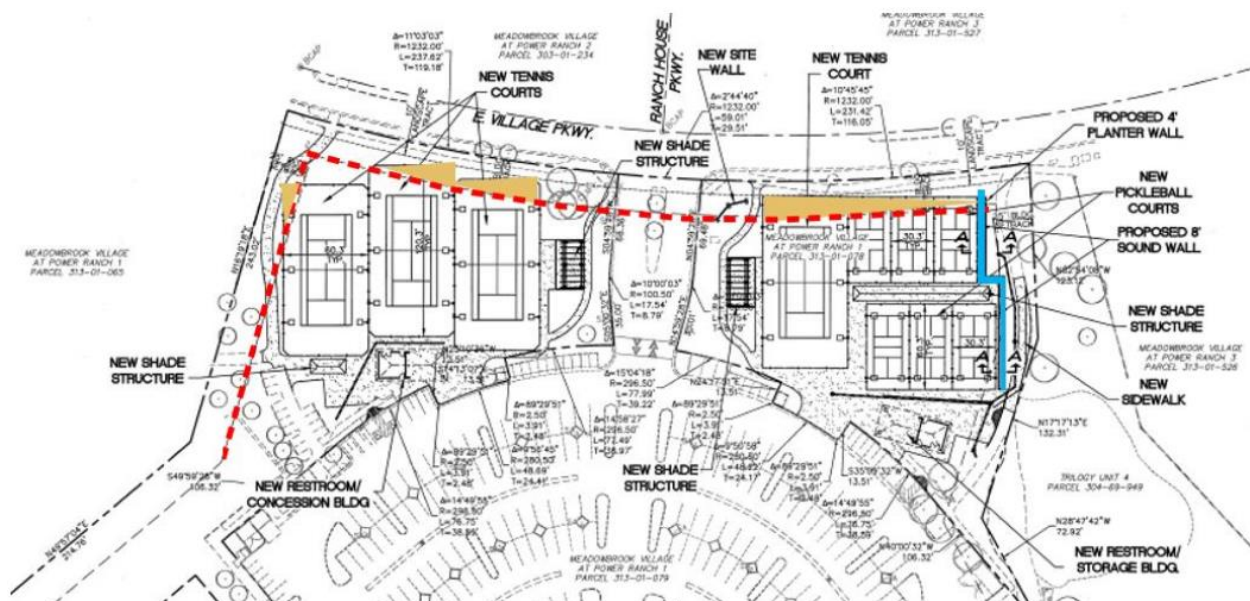
Chapter 6: Community Design Policy 3.6: Encourage design of common areas in each neighborhood that recognizes open space, passive and active, as a necessity providing recreation for children, youth and adults and designating areas for off-street parking adjacent to active areas.

PAD Amendment

There are four existing courts located at the clubhouse entrance. The two existing easternmost courts allow both tennis and pickleball (four courts on each for a total of 8). The HOA has proposed that the two easternmost courts be reconfigured and transition to pickleball courts and one new court be added to each side of the entry as shown below. These changes would result in four tennis courts and 6 dedicated pickleball courts as shown below.



The reconfiguration of the courts locates them closer to E. Village Parkway and into the existing setback to maintain the newly renovated parking lot. The applicant is therefore requesting a deviation to allow the courts within 10 feet of the northern property line and a portion of the western property line.



It is important to note that the PAD requires that 75% of the total required open space area shall contain active recreation uses and allows for revisions and relocations of parks and open spaces.

PUBLIC NOTIFICATION AND INPUT

A notice of public hearing was published in a newspaper of general circulation in the Town, an official notice was posted in all the required public places within the Town and

neighborhood notice was provided per the requirements of the Land Development Code Article 5.205.

A neighborhood meeting was held on February 13, 2020. Approximately 139 residents attended the meeting. The residents asked questions related to the phasing of the development, the sound wall, the noise study, and the impact of decreasing the setbacks. The Developer responded that the improvements would be made in a single phase; that the noise study did show a need for a sound wall, and that one is provided on the east side of the development; and that the setback reduction is along the north boundary which would bring homes closer to the road. Additional feedback was provided from community members both in support and in opposition. Minutes from the neighborhood meeting are provided in Attachment 8.

Staff has received 10 comments from the public after the application filing (4/1/2020)– these letters are provided as Attachment 8. Additional comments in support and in opposition were also submitted prior to the application filing – these letters are available upon request.

PROPOSITION 207

An agreement to “Waive Claims for Diminution in Value” pursuant to A.R.S. § 12-1134 was signed by the landowners of the subject site, in conformance with Section 5.201 of the Town of Gilbert Land Development Code. This waiver is located in the case file.

REASONS FOR THE RECOMMENDATION

1. The proposed zoning amendment conforms to the General Plan as amended, any applicable Specific Area Plan, neighborhood, or other plan and any overlay zoning district.
2. All required public notice has been conducted in accordance with applicable state and local laws.
3. All required public meetings and hearings have been held in accordance with applicable state and local laws.
4. The proposed rezoning supports the Town's strategic initiative for Community Livability. It supports the motto “Gilbert: Clean, Safe, Vibrant.”

STAFF RECOMMENDATION

For the following reasons: the development proposal conforms to the intent of the General Plan and can be appropriately coordinated with existing and planned development of the surrounding areas, and all required public notice and meetings have been held, the Planning Commission moves to recommend approval of Z20-03 amending Ordinance No. 1450 on 5.74 acres of Public Facilities/Institutional (PF/I) zoning district with a PAD, subject to the following conditions.

- a. The Development plan for Power Ranch PAD dated December 11, 2002 and adopted under Ordinance 1450 shall remain in full force and effect with the following modification on the 5.74 acre subject site:

| Development Standard | Power Ranch PAD Subject site (attachment 3) |
|--|--|
| <i>Building and Landscape Setbacks:</i> | |
| Front | 10' |
| Side (west) | 10' |

Respectfully submitted,



Ashlee MacDonald, AICP
Senior Planner

Attachments and Enclosures:

- 1) Notice of Public Hearing/Vicinity Map
- 2) Aerial Photo
- 3) Zoning Exhibit
- 4) Development Plan
- 5) Applicant's Narrative
- 6) Neighborhood Meeting Minutes
- 7) Minutes from the Planning Commission Study Session of June 3, 2020
- 8) Correspondence from the public

Z20-03: Trilogy at Power Ranch
Attachment 1 - Notice of Public Hearing/Vicinity Map *aring*

PLANNING COMMISSION DATE: *Wednesday, July 1, 2020* TIME: 6:00 PM*
TOWN COUNCIL DATE: *Tuesday, August 25, 2020 TIME: 6:30 PM*
LOCATION: *Due to the impacts of the COVID-19 pandemic, all public meetings will be conducted using measures to protect public health until further notice. Please refer to the meeting agenda for methods of public participation, as permitted under Arizona state law.*

***Call Planning Division to verify date and time: (480) 503-6748**
*** The application is available to the public for review at the Town of Gilbert Planning Division Monday - Thursday 7AM - 6PM. Staff reports are available prior to the meeting at www.gilbertaz.gov/departments/development-services/planning/planning-commission and www.gilbertdocs.com/gilbertagendaonline.**

REQUESTED ACTION:

Z20-03 TRILOGY AT POWER RANCH: Request to amend Ordinance No. 1450 to amend the conditions of development within the Trilogy at Power Ranch Planned Area Development overlay zoning district (PAD) for approx. 5.74 acres located at 4369 E. Village Parkway, consisting of 5.74 acres of Public Facilities/Institutional (PF/I) zoning district with a PAD as shown on the exhibit (map) available for viewing in the Planning Services Division. The request is to allow a deviation in the development standards along the north and west property boundaries reducing the building and landscape setbacks to 10ft. The effect of the amended development conditions will be allow decreased setbacks.

SITE LOCATION:



APPLICANT: *Withey Morris PLC*
CONTACT: *Adam Baugh*
ADDRESS: *2525 E. Arizona Biltmore Cr., Suite A-212*
Phoenix, AZ 85016

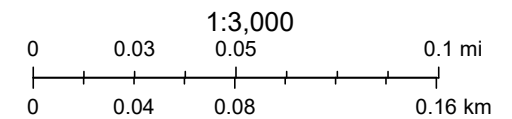
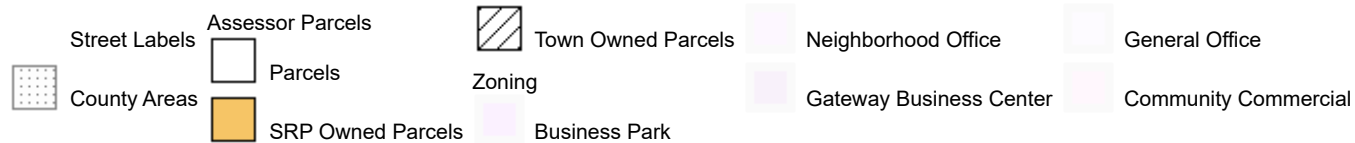
TELEPHONE: *(602) 230-0600*
E-MAIL: *adam@witheymorris.com*

Z20-03 Trilogy

Z20-03: Trilogy at Power Ranch Attachment 2 - Aerial Photo

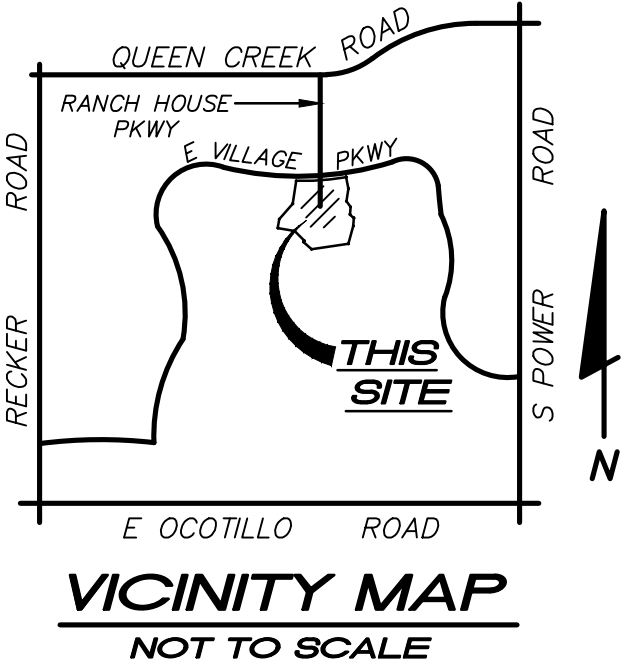


June 25, 2020



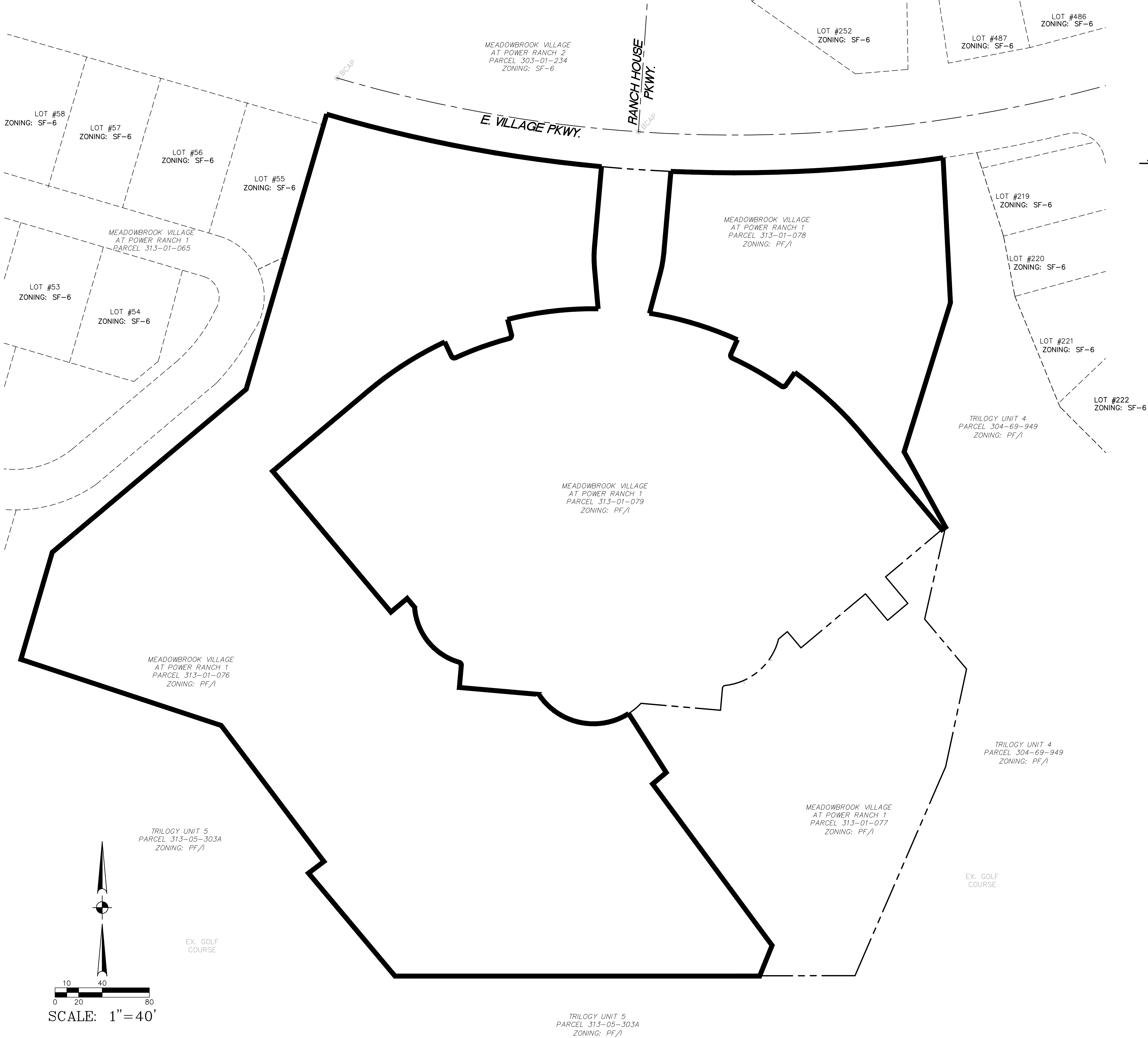
ZONING EXHIBIT
FOR
TENNIS COURTS AND
PICKLEBALL COURTS
AT
TRILOGY AT POWER RANCH

**SITE ADDRESS: 4369 E. VILLAGE PKWY
GILBERT, ARIZONA 85298**



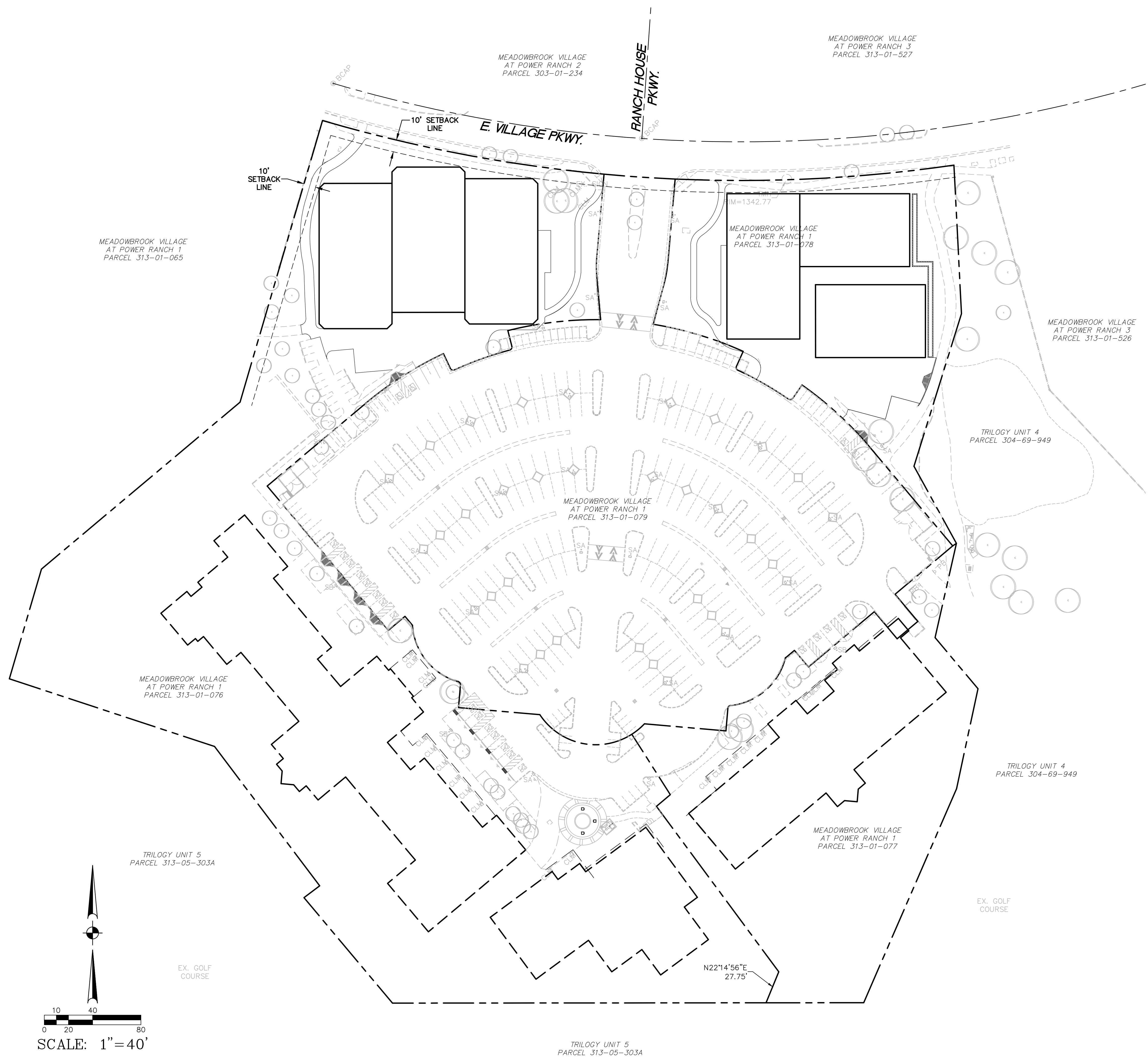
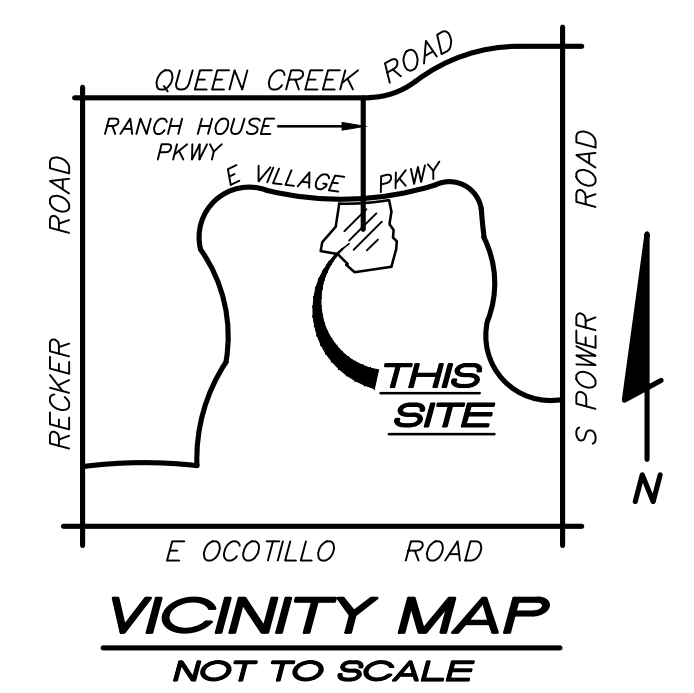
PROJECT DATA TABLE:

| |
|--|
| <u>NET & GROSS LOT SIZE:</u> |
| 5.25 ACRES OR 228,664.52 S.F. |
| <u>BASE ZONING DISTRICT(S):</u> |
| CURRENT - PAD PF/I |
| PROPOSED - PAD PF/I |
| <u>GENERAL PLAN CLASSIFICATION(S):</u> |
| GFC |
| <u>PERCENT OF TOTAL ACREAGE IN EACH ZONING DISTRICT:</u> |
| 100% |
| <u>AVAILABLE PUBLIC UTILITIES:</u> |
| WATER - TOWN OF GILBERT |
| SEWER - TOWN OF GILBERT |
| ELECTRIC- SRP |
| GAS - SOUTHWEST GAS |



PAD SITE PLAN
FOR
TENNIS COURTS AND
PICKLEBALL COURTS
AT
TRILOGY AT POWER RANCH

**SITE ADDRESS: 4369 E. VILLAGE PKWY
GILBERT, ARIZONA 85298**



Trilogy at Power Ranch

**Pre-Application
PAD Amendment**

4369 East Village Parkway, Gilbert, AZ

Project Narrative

A. Request

This pre-application includes a Planned Area Development (PAD) amendment to adjust the setbacks for the recreational sport courts located along Village Parkway within Trilogy at Power Ranch.

B. Project Background

The Power Ranch PAD was initially approved in July 1997 and subsequently amended four times, the most recent being January 2003. Trilogy at Power Ranch was approved as an age restricted community within Power Ranch, which allows both residential and recreational uses.

C. Pickleball Popularity

Trilogy currently has four (4) courts at the entrance to its recreational amenity and clubhouse area. In 2012, residents of Trilogy formed a Pickleball Club and pickleball and tennis have jointly used the courts for the last 8 years. Currently, pickleball is permitted and is already being played on the eastern courts, which allows up to 32 pickleball players at a time.

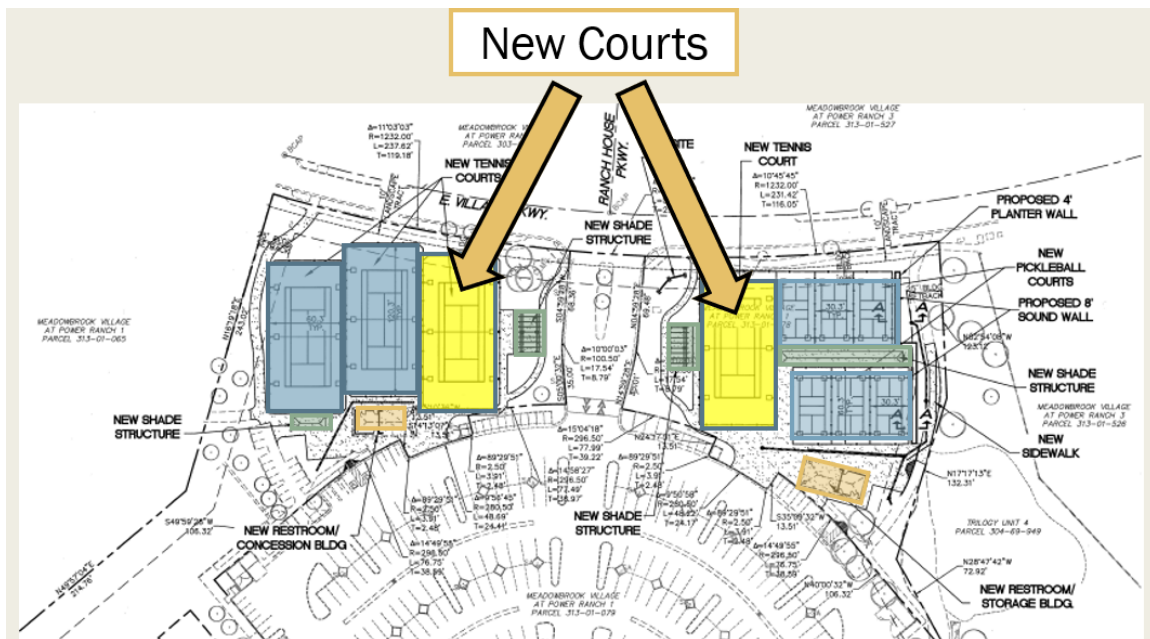


Pickleball at Trilogy is growing as it is in the rest of the world. Prospective homebuyers recognize the importance of an active, healthy lifestyle and most are looking for a vibrant social life and a way to meet people. Pickleball is an important amenity in active communities and it is one of the fastest growing sports in America. It has a 650 percent increase in numbers over the last six years, according to USA Pickleball Association (USAPA). The biggest subset of that growth is in active communities like Trilogy where its membership has increased dramatically to 211 active members.

D. Sport Court Proposal

Due to the pickleball demand, in 2014, residents of Trilogy voted to add two new sport courts that would allow more court time for both tennis and pickleball. In 2016, residents again overwhelming voted to approve the Trilogy Board of Director's proposal to spend funds for the additional the two courts. The new sport courts must have the required industry standard surfaces, lighting, netting, and dimensions as part of their new design.

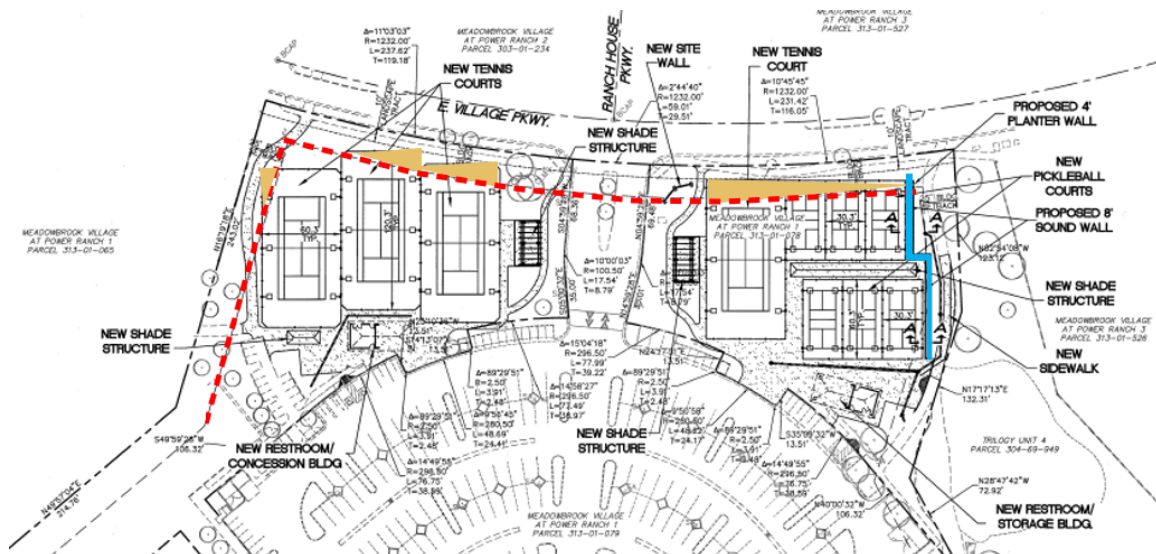
The two new sport courts will be added to the existing open space at the entrance (indicated in yellow on the exhibit below). The other existing courts will be reconfigured to maintain the same number of courts (4) as before. Additionally, pickleball will still be played on the eastern courts as it is currently enjoyed today. Shaded viewing areas, bathroom facilities, and social areas will also be included in the redesigned area.



E. PAD Amendment

In order to accommodate the two additional sport courts, a reduction in the setback is required. While the PAD requires a 25' building setback from the property line, this PAD amendment requests a 10' setback from the court fence to the property line.

To be clear, no setback reduction is proposed along the eastern side where pickleball is currently being played today, and where it will still continue to be played after re-construction. The required 25-foot setback will continue to be maintained along the eastern side. The setback reduction will only apply to the northern side, which is adjacent to Village Parkway, as well as a small area on the northwest corner as illustrated in orange on the exhibit below. As the exhibit below shows, most of the 25-foot setback is still observed, except for some portions of the court fence that will be at 10 feet. By reducing the setback on the north side, Trilogy is able to fit the new courts within the required dimensional elements, walkways, plazas and parking.



The addition of the sport courts will provide a benefit to the residents surging need for more tennis and pickleball courts, thereby expanding recreational activities for the community.

The current sport courts are beyond capacity today and players fight for court time. At the same time, demand for pickleball has skyrocketed. The addition of two more courts will meet the needs of tennis and the growing pickleball community, without requiring any new space for development. The proposed restroom and ramada will also encourage socialization both on and off the courts.

Due to the size of the sport court area and standard court sizes required, the encroachment into the setback near the street is needed. Otherwise, the courts would have to be shifted southward, causing a loss of parking, and in violation of the approved AUP for modified parking (AUP16-13).

F. Conclusion

The PAD amendment facilitates the addition of two new courts while allowing the same use of the existing four courts, thereby addressing the growing demand within the community. The PAD does not reduce the required eastern setback boundaries. Furthermore, the eastern courts are already being used today for pickleball and will continue to be used hereafter. This proposal simply solves a problem with user demand and court time. Pickleball is a popular sport with significant demand in Trilogy at Power Ranch. Finding a way to preserve courts for tennis while meeting the surging demand for pickleball is successfully achieved through this endeavor.

Z20-03: Trilogy at Power Ranch

Attachment 6 - Neighborhood Meeting Minutes



PHONE: 602-230-0600

FAX: 602-212-1787

2525 E. Arizona Biltmore Circle, Suite A-212, Phoenix, AZ 85016

MEMORANDUM

To: Town of Gilbert

FROM: G. Adam Baugh

DATE: March 5, 2020

RE: Neighborhood Meeting Summary – Preapplication for PAD Amendment / 4369 E Village Parkway

The following is a summary of the neighborhood meeting held on February 13, 2020 for the PAD Amendment request. The neighborhood meeting was held at 4369 E Village Parkway in the Trilogy at Power Ranch Ballroom at 4:00pm. The development team was present to explain the proposed development and answer questions as well as one Town staff member, Ashlee McDonald. There were 139 attendees at the meeting who signed in. The applicant's representative, Adam Baugh, presented the request and then there was an hour of question and answer. The sign-in sheet, neighbor notification letter, mailing labels, mailing radius map, photographs of the sign posting, and affidavits of notification are attached to this memorandum.

There were 32 people who had questions and comments regarding the proposal and other matters. Due to the number of people who commented on the items, I am going to summarize the key issues, concerns, and questions identified from those who spoke and not every word that was said.

The questions and responses that were asked and provided during the meeting included:

- Does the Town require the bathroom areas and shaded areas with the sports court or is that from Trilogy at Power Ranch?
 - Response: These requirements were placed by the Sports Court Ad Hoc Task Force from Trilogy at Power Ranch.
- Could there be a Phase I and II for this development so we can get something approved sooner?
 - Response: The proposal is for one phase.
- Is there a sound wall on the east side of the development only?
 - Response: The 8 ft sound wall is located along the east side of the development.
- What was voted on in 2014 and 2016?
 - Response: The vote is 2016 provided the funding to expand the sports courts.
- Are there any negatives to decreasing the setback to 10 ft from 25 ft?
 - Response: The setback is reducing along the north boundary, which is closer to the road and not closer to the adjacent residential.
- Was there a test done regarding the sound and did that test show there was no need for a sound wall?
 - Response: That is correct, the sound wall was provided as a compromise to the residents located on the east side of the courts.
- If it will take 8 months for construction, is there something to improve the existing courts condition in the meantime?

- Response: The applicant's representative noted that he cannot answer that questions and that is for the Board of Directors to decide.

In addition, there were comments provided on the proposal and other matters. Those comments are summarized below:

- There were two residents who felt the application is premature and alternative proposals should be reviewed prior to moving forward with this application.
- One resident who lives on the east side of the proposed courts noted she would be negatively impacted by the new design specifically with sound and lighting. In addition, she noted that alternative designs should be voted on by the community and not only the Board of Directors
- There were a few residents who supported the proposal and shared they are eager to get this moving forward since it's been since 2016.
- There was some discussion regarding the Sports Court Ad Hoc Task Force and its function with the Board of Directors.
- One resident commented about the need for more meetings open to the public to discuss this item and others.
- One resident asked the attendees to raise their hand if they want to move forward (the majority of hands went up) and then asked who was against moving forward (less hands went up).
- One resident thought we should post pone for a month to review the alternative site plans.
- One resident noted that there have been over three dozen meetings giving the details of this sport court plan.
- There was a comment regarding property values and that having newer courts will increase home values.
- Two residents commented the technology of the pickleball racquet has changed and is less noisy as the other models. Manufacturers do not make the noisier ones anymore.
- One resident asked why the alternative plans were not presented six years ago during the beginning stages of this.
- One resident asked about what improvements can be made in the meantime while this is going through the Town process.
- One resident requested that no lights be included on the courts.

Z20-03: Trilogy at Power Ranch Attachment 7 - Minutes from the Planning Commission Study Session of June 3, 2020

southern and eastern boundaries to provide a buffer and some perimeter boundaries for the McQueen Landing residential subdivision. Similar materials and colors are applied throughout the design theme for all of the buildings. The design draws inspiration from the surrounding developments with a modern edge.

The only first review comment on Pad A was the suggestion to bring the windows down to the base of building to provide balance on the south elevation. Pad B for the four retail and restaurant suites is of a similar design with a different massing of the colors and materials to differentiate the four separate suites. For Pad C, the automotive building, staff has recommended that the canopies be raised on the west and north elevations to create more balance, and to provide variation in the columns in between the bays. This has been requested in the past in auto-oriented businesses with bays to provide some movement to such a large elevation. The materials are a combination of stucco, EIFS, and accents of splitface and smooth CMU block and metal. Photos were provided of the surrounding developments showing a desert palette and similar architecture.

Ms. Bethel requested input from the Commission on the proposed elevations for the three buildings as well as general feedback on the project.

QUESTIONS COMMENTS:

Commissioner Mackin agreed with the level of use on the PAD and felt it fits perfectly for the location in terms of commercial development. He thought it was a nice balance of uses. He also agreed with the staff recommendations. Everything looks great.

Commissioner Mundt lived on Kokopelli 10 or so years ago and felt it will be good to fill in the area. There has been a lot of turnover. The gas station across the street had work done he believed due to environmental issues. The elevations look good and it will blend in nicely and fill in that corner.

Commissioner Simon agreed with all of the previous comments.

Commissioner Cavenee liked the layout given the uses proposed. He liked the dumpster layouts and felt they were positioned well considering some of the uses will have food waste. He confirmed with staff that the drive in from south of Guadalupe is within this property boundary and not a shared access. He liked the exterior elevations and felt they were warm and inviting. The colors blend well with the surrounding pieces. He liked the mix of materials with stone and stucco and accents on the cap and with the awnings. For Pad C, staff was looking to vary the long elevation. In addition to columns, he suggested raising the elevation of the corner piece at the entry and making that parapet a little higher to accent the entry point of the building. Each of the buildings has good signage opportunities with dedicated positions. It is certainly not overdone, but was just about the right mix. He felt the Architect has done a very good job.

- Z20-03 TRILOGY AT POWER RANCH:** Request to amend Ordinance[s] No. 1450 to amend the conditions of development within the Trilogy at Power Ranch Planned Area Development overlay zoning district (PAD) for approx. 5.74 acres located at 4369 E. Village Parkway, consisting of 5.74 acres of Public Facilities/Institutional (PF/I) zoning district with a PAD as shown on the exhibit (map) available for viewing in the Planning Services Division. The request is to amend the conditions of development to allow a deviation in the development standards along the north and west property boundaries reducing the building and landscape setbacks to 10ft.

DR19-128 TRILOGY AT POWER RANCH: Tennis and Pickleball Complex: Site plan, landscape, grading and drainage, elevations, floor plans, lighting, colors and materials, for approximately 5.74 acres, located at 4369 E. Village Parkway, and zoned Public Facilities/Institutional (PF/I) with a Planned Area Development (PAD) overlay zoning district.

One comment card was submitted in favor of this item by James Mayes.

Senior Planner Ashlee MacDonald presented Z20-03 and DR19-128, Trilogy at Power Ranch located off Power Road south of Queen Creek Road. The request is for pickleball and tennis court renovations off of Ranch House Parkway, at both sides of the main entry to the site are existing courts. On the west side are two tennis courts. On the east side there are two tennis courts, each of which has been lined to allow four pickleball courts a few years ago. Trilogy has active residents with tennis and pickleball clubs. These are well-utilized courts within the community.

The applicant is requesting a PAD amendment on a 5.74 acre portion of the Power Ranch PAD. The site is currently zoned Public Facilities/Institutional (PD/I) with a PAD. The applicant is seeking to amend the PAD to reduce the front and west side setbacks and landscape setbacks down to 10 feet in the court area.

The DR case is seeking additional courts and reconfiguration of the courts. The modifications requested are for reductions in both the building setback and landscape setback from 25 feet along the frontage down to 10 feet. A drawing was provided showing the encroachment into the required setbacks. With the Design Review, the applicant has proposed a site plan showing the addition of a court on the west side of the site, shifting the courts slightly to accommodate the third court. On the east side of the entry, the applicant has proposed an additional tennis court and reconfiguration of the current courts to allow a total of six dedicated pickleball courts.

The addition of courts and the reconfiguration will impact the landscaping on site. The applicant is still providing ample landscaping with an additional 24 trees as well as shrubs and plants. The landscaping is consistent with what exists there today. The applicant is also proposing two restroom buildings with shaded social areas. Those buildings will match the existing HOA facility buildings on site in terms of materials and colors. Fabric shade canopies are proposed on either side of the entry drive for those court users. Staff has asked the applicant to consider an alternative material that is of higher quality and more durable, or additional information on the proposed canopy. The applicant is proposing a sound wall to help mitigate some of the noise impact of the pickleball courts through a 4 foot retaining wall of stacked stone with a stucco wall behind. Staff has asked for additional information on the wall behind to ensure that it is in compliance with what was recommended in the sound study. That study indicated that it should be a CMU type block material to effectively mitigate the noise.

On the west side of the drive, there is an 18 foot proposed light pole. Although it does meet our standard for the foot candle at the property line, staff has requested information on the impact of this light to the adjoining property. Staff has asked that a house-side shield be installed to limit the glare. Staff has asked the applicant to ensure that the kelvin temperature of the lights is no more than 3000K, which is a warm white that is easier on the eyes at night, and they have complied.

A sound study was completed with on-site noise measurements of the courts as well as an acoustic model for future noise levels with the additional courts. That study recommended an 8 foot wall on the east side of the courts and suggested adding a water feature to help mask the noise. A water feature is not included in the proposal. Staff has provided feedback to the applicant on the noise and asked them to further explain the impacts of the noise wall if sound were to bounce off of that heading west.

There has been considerable public participation on this project, including two community meetings in May of 2019 and February of 2020, and there was input both in support and in opposition. The community feels that this is a much-needed amenity, although there are concerns for the noise with pickleball, traffic and parking issues with the increase in courts, the cost of those to the HOA, and alternative designs not being fully vetted. The Planning Commission will be provided emails and communications received at the time of the Public Hearing.

Ms. MacDonald is seeking input from the Commission regarding the front and side setback deviations requested and the overall site design.

QUESTION/COMMENTS:

Commissioner Cavenee turned the meeting over to Vice Chair Bloomfield.

Commissioner Cavenee noted the setback was one of the more significant deviations requested. He asked if the courts have privacy screening. He understood it is not within the visibility triangle, although he was concerned about the views for ingress and egress into the drive entrance.

Ms. MacDonald advised that the current courts did have the privacy screening. She will verify with the applicant whether that is being planned.

Commissioner Cavenee stated there are some trees on the west side that would have a worse effect to the view of oncoming traffic. It might be nice to make sure traffic is okay with that encroachment. They are not actually doing buildings, but fencing and flat courts in those setback reductions. He was not sure it was really that invasive. Overall, he was in support. Since the sound wall was to mitigate the concerns from homeowners, he asked if pickleball was that much louder than tennis.

Ms. MacDonald stated the sound of the ball off of the racquets is the concern. Some videos have been shared with staff to show that the noise is a little bit higher than tennis.

Commissioner Cavenee noted a concern about parking. Has anyone evaluated the parking use since the four courts are in place? Would this many more courts overwhelm the parking? Has traffic reviewed the plan?

Ms. MacDonald stated there is no requirement for additional parking based on the additional courts, which are part of the HOA facility, which is based off of the building square footage. They are not required to do additional parking based on the addition of the courts. In 2018, the applicant received approval of an Administrative Use Permit to modify parking. Part of that was the requirement to provide a significant amount of parking spaces for golf carts. This is a gated community and some utilize the facilities by golf cart. Counting those spaces, they are in excess of the requirement, so staff did allow them to reduce the parking for their facilities and they redesigned their parking lot. The parking was evaluated with the 2018 request.

Commissioner Cavenee was okay with everything given staff's explanation. He did not want to add unnecessary cost to the HOA, although he agreed that the fabric canopy in the sun will become a maintenance challenge. It might make sense to spend the money up front and do metal roofing like in the ramadas and restrooms. He would recommend a matching hard surface for the shade element.

Commissioner Alibrandi was fairly familiar with this area. The courts are tucked off to the sides so there is really no traffic or visibility problem, nor is the parking an issue there. He had no problem with the HOA using its own land. One court is already close to the residential area. He did not imagine the noise could be that much worse. He had no problems with the proposal at all.

Vice Chair Bloomfield felt the shielding would take care of any concerns with the lighting. He asked if a concern was brought up by the neighbor who might be affected.

Ms. MacDonald has not heard anything in particular from that neighbor. It is one of the items that is encroaching into what the required setback would be and stood out as something that might need addressing.

Vice Chair Bloomfield agreed and was just curious if it was brought on by a concern or complaint from the neighbor. If we feel like it could be an issue there, then we should request that it be discussed with that neighbor. One of the questions was whether the sound wall will impact the noise. He noted the applicant is adding more trees in the area. The addition of trees and vegetative material works well to soften sounds and prevent them from traveling far. He did not feel that was going to be an issue, although he was anxious to hear the residents' concerns more fully. This is not an aggressive position for us because it is internal to their

community and is more of an HOA driven request. He was not sure he had any concerns, but was interested to hear the public input.

3. ST20-08 ENCLAVE AT MADERA PARC: Three (3) new standard plans (Plans 1673, 1751, 1891,) by American Homes 4Rent for Lots 1-51, on approximately 10.45 acres generally located south of Madera Parc Drive and east of Cooper Road in the Single Family-Detached (SF-D) zoning district with a Planned Area Development (PAD) overlay.

Planner Stephanie Bubenheim presented ST20-08, Enclave at Madera Park, three new standard plans. The site is located northeast of Cooper and Warner Roads. In 2018, the site went through a rezoning for part of the church parking lot and retention area to SF-D and the final plat has been approved. Tonight, we are just looking at the standard plans for 51 lots. The typical lot size is 45' by 72' and all of the homes will be two story, for-rent product. There are three standard plans, four color schemes and four elevation styles, Southwestern Bungalow, Arizona Ranch, Traditional and Modern Prairie. Since the staff report was written, the applicant has provided updated exhibits. The elevation matrix was reviewed.

Staff's first review comment were to have more architectural elements that differentiate the four elevations as they seemed quite similar. The applicant has incorporated brick and stone wainscoting, although staff is looking for additional elements that are true to style. Staff has asked for further architectural elements for the rear elevations and suggested shutters for the second story windows since some units will be seen from neighboring properties. Staff felt the color schemes were too similar and the applicant has updated one to more gray neutral tones. The applicant has provided an updated elevation matrix with varying rooflines for the Southwestern Bungalow, shutters added to a few elevations, and windows that have been added or modified.

Staff is looking for Commission input on the elevation styles, whether the architectural elements are true to style, the variety in color schemes, and overall feedback on the architecture, elevations and rooflines.

QUESTIONS/COMMENTS:

Commissioner Cavenee agreed that there was not much difference between the four themes. He understood they were trying to stay with the same floor plan and structure, with changes to the façade. He would encourage even more variation, perhaps through additional materials. The Traditional has some stone on the columns, which is different. He would suggest more of that type of work to differentiate the themes. Given the product, it is probably as good as it might get. The color palettes are very similar. He was not sure in a neighborhood setting they would feel that differentiated. There are a few bold colors, but for the most part it will feel monolithic in the color scheme. He understood you don't want to get too dramatic in a for rent product, although he felt it needed more variation so that the styles really jump.

Commissioner Mackin agreed that there needs to be more detailing. The southern and side elevations are lacking, especially those exposed to view. He understood the intent was for rent product probably for corporate housing. He asked if there was anything preventing the developer from deciding to sell these as individual homes at some point.

Ms. Bubenheim will follow up with the applicant in that regard.

Commissioner Mackin felt if at any time this could become a single-family residential neighborhood, it needs to have a lot of the same high standards that we would impose on any single-family residential neighborhood. He understood the need to be cost effective with a rental product. He felt we need to be sensitive to the potential that this could be converted in the future to single-family residential. He concurred that there needs to be more detailing either way to make sure it is not too uniform.

Z20-03: Trilogy at Power Ranch Attachment 8 - Correspondence From The Public

From: Jim and Jean O'Donnell >
Sent: Wednesday, June 24, 2020 6:56 PM
To: Ashlee MacDonald
Cc: Catherine Lorbeer
Subject: Public Comment Z20-03 Trilogy at Power Ranch Public Hearing July 1, 2020

Ashlee,

I am submitting the comments below for the Planning Commission Public Hearing scheduled for July 1 for the Trilogy at Power Ranch Sports Courts Proposal.

Jean O'Donnell

June 22, 2020

To: Town of Gilbert Planning Commission
Brian Anderson, Chair
Carl Bloomfield, Vice Chair
David Cavenee
Noah Mundt
Jan Simon
Philip Alibrandi, Alternate
Nathan Mackin, Alternate

From: Jean O'Donnell, Owner, Trilogy at Power Ranch, 4299 E Blue Spruce Ln

As I spend my summers in Idaho, I cannot attend the public hearing scheduled for July 1, 2020. This letter expresses some of my concerns regarding the proposal to reduce the setback requirements primarily north and west of the tennis and pickle ball courts proposed by the Board of Directors of Trilogy at Power Ranch.

As a resident of Gilbert, a master planned community, I have trusted that the Town decision-makers would insist on compliance to Codes and Standards when planned communities like Trilogy sought change. I hope the Planning Commission will trust that the original plan is what current owners bought and trusted would be left in place for many decades. Changing the plan owners purchased should not be based on desires of a small number in the community. In the case of Trilogy, approximately 211 of 3800 residents play pickleball but are demanding a complete rebuild of the entry to the community to satisfy their wants. Many in the community of 3800 residents have requested a Yes or No vote by the 2035 owners for the proposed plan. The Board of Directors has denied that request.

My concerns:

1. Community Support

I believe community support is misrepresented in the proposal narrative. Though requested by owners numerous times, the Board of Directors has never approved a vote of the owners to learn how many support the current conceptual design proposal that was first presented in December 2018, more than two years after the 2016 ballot noted in the narrative.

In the narrative (page 2) presented in the proposal, a statement is made that the community in 2016 voted "overwhelming" support for the building of two additional courts. The 2016 ballot primarily supported much more than that. I quote from the commentary with the ballot:

"But, the repurpose of the clubhouse and construction of the two new sports courts still need to be finalized. Also, some aspects of the new building and café were not done because of budget constraints.

The ballot language:

"Yes, I approve of the Board's proposal to spend an additional amount not to exceed \$575,000.00 for the post construction and re-purposing project for the community facilities, for two added sports courts, and added parking spaces. "

Summary: The new Fitness Center, Multipurpose Room and Cafe required more funds to complete the needs of the community. The Repurposing/Remodeling of other clubhouse space also required more money. Those needs were approximately 70% of the total amount specified in the ballot. It was an urgent need because items like fans, lockers in dressing rooms, mirrors, window shades, Cafe electrical outlets and other items had not been funded with the construction project funds. The two new sports courts were not the primary focus of the ballot though did have additional funds allocated to support the completion of only two courts, repair of an existing court and landscape.

The vote was 917 owners out of 2035 voting YES, 432 voting NO, and 686 NOT voting. Only 45% of the 2035 owners voted YES, not overwhelming support and the issue was NOT sports courts.

2. Impact to Neighbors Near the Courts

The Board of Directors refused to follow the recommendations of Dr. Lance Willis, Acoustics Engineer with extensive experience in pickle ball noise abatement. Though I am not impacted by the noise, I cannot support a sports complex that affects the daily lives and peace of mind of these neighbors often making it impossible for them to enjoy their patios and backyards because of inadequate or unproven noise abatement. Pickle ball noise is a well known distraction and disturbance for neighbors that must be solved to satisfactorily abate the noise levels. The proximity of the courts to the homes and the noise also reduces the value of these neighbors' homes when many paid lot premiums to be near the clubhouse prior to the decision to accommodate pickle ball courts.

3. Compliance to CCRs and Bylaws.

The proposed conceptual design modifies the existing common areas north of the existing courts for green space and landscape that have been in the community for 20 years. The CCRs require owner approval of common area changes. The Board of Directors has not asked the community to vote on that change. Without the vote, compliance to the CCRs is being ignored.

The proposed scope for the project includes restrooms, social gathering spaces, viewing areas, shade canopies and other amenities that have never been presented to the owners for approval as new capital assets for the community. New capital assets exceeding \$111,000 for 2020 must be approved by the owners. These additional assets also result in operational and long term Repair and Replacement costs that must be funded in the future by all owners.

Thank you for considering my concerns.

I ask that the Planning Commission recommend denial of the variance to the Gilbert Town Council.

James and Jean O'Donnell

4299 E Blue Spruce Ln

Gilbert, AZ 85298

480-

February 7, 2020

To: **Trilogy Board of Directors**

Wayne Norlie President, Sally Ballard, Vice President, David Berner, Treasurer
Mike Nall, Secretary, Michael Loughran, Ruth Ryan, James Warburton

Withey Morris PLC, Attorneys at Law

Attn: G. Adam Baugh

2525 E. Arizona Biltmore Circle

Suite A-212

Phoenix, AZ 85016

Re: Comments for Notification of Neighborhood Meeting/PAD Amendment for Trilogy at Power Ranch, Gilbert, AZ

As we are unable to attend the February 13 meeting, we are presenting our comments in this correspondence.

Issue 1 - The proposed amendment reducing the setback to 10 feet from the street modifies the green space surrounding the existing Sports Courts, **Exhibit 1**. The Board of Directors of Trilogy at Power Ranch is proposing a change in common areas to construct new sports courts, restrooms and storage areas that under the CCRs approved by the owners in 2014 and recorded on 2/11/2014 in Maricopa County requires actions that have not yet been exercised and agreed to by the owners. See **Exhibit 2, CCR 4.14**. If this setback amendment is approved, it creates an unattractive entry because fences and walls will be the "welcome greeting" to the community rather than green landscape and welcoming architecture that calms and satisfies owners and guests.

Until that change in common areas is supported by owners, it seems premature to be seeking an amendment to the PAD. **We are requesting that the Board of Directors stop any further actions to pursue the change in common areas until CCR C-4.14 has been exercised and owners have been given the opportunity to exercise their rights under the owner approved CCRs. Though the owner vote in 2014 supported a common area change, it was not presented in the literature as what is now planned.**

Issue 2 - The initial vote to approve construction of new sports courts was in 2014, **Exhibit 3**. The ballot item and Expansion Booklet presented to owners did not include common area changes in the green space, restrooms, viewing areas, storage and social gathering spaces. There was also no mention of the potential of a complete rebuild of the existing courts at the same time. The current plan has not been voted, funded and agreed to with a vote of the owners. Therefore, the BOD submitting a request for an amendment to the PAD is premature and has not determined the support of the 2035 owners with a vote. Until owners approve a ballot issue describing exactly what will be constructed, this amendment should not proceed.

Regards,

James O'Donnell, Lot 1509

Jean O'Donnell, Lot 1509

CC: Ian Welsh, Executive Director, Trilogy at Power Ranch
Jenn Daniels, Mayor, Town of Gilbert, Jenn.Daniels@gilbertaz.gov
Ashlee MacDonald, Town of Gilbert Planning Department, Ashlee.MacDonald@gilbertaz.gov
Catherine Lorbeer, Town of Gilbert Planning Department, Catherine.Lorbeer@gilbertaz.gov
Brian Andersen-Chair Town of Gilbert Planning Commission

Carl Bloomfield-Vice Chair, Town of Gilbert Planning Commission

Exhibit 1

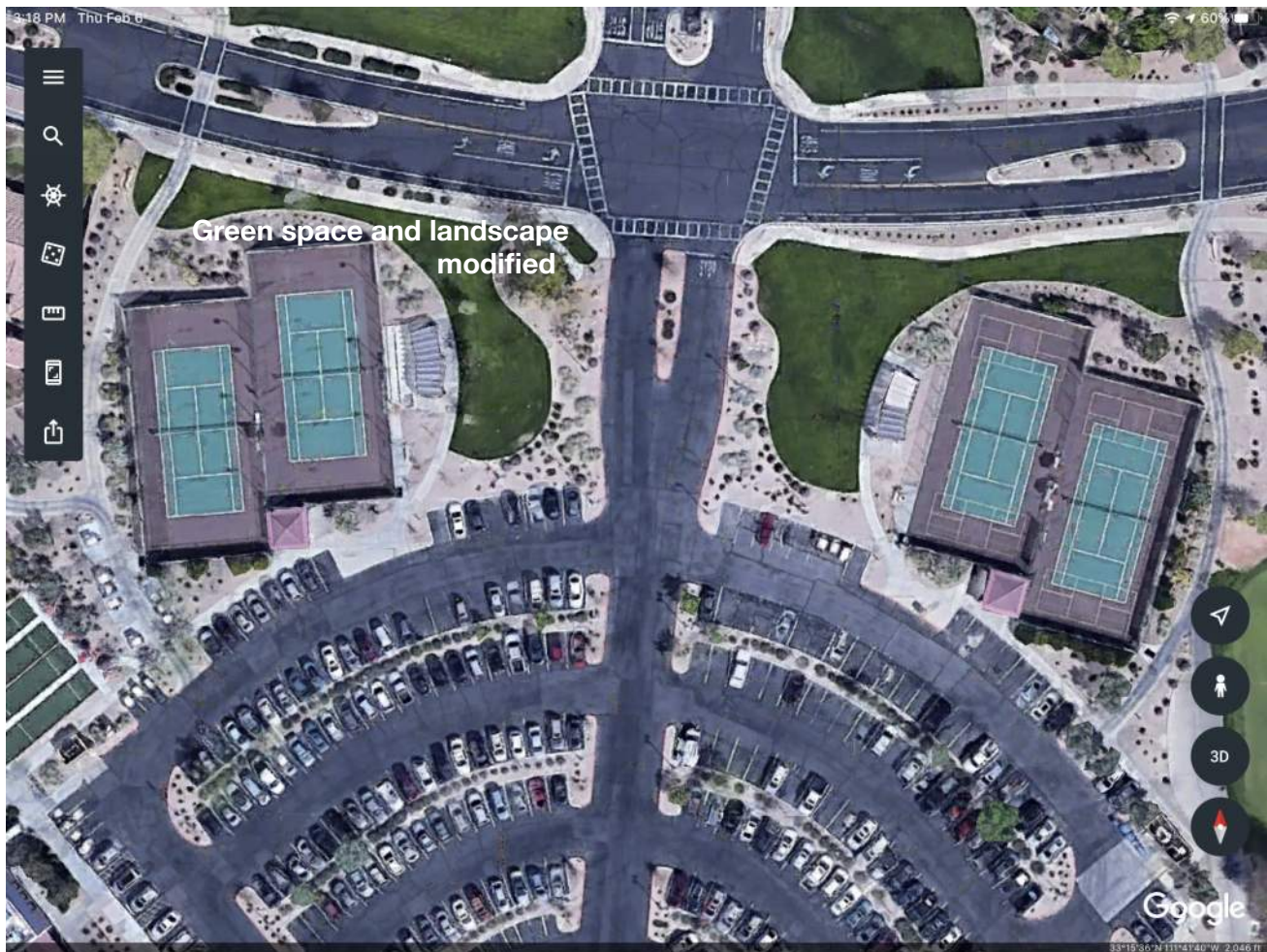


Photo at Carob and Village Parkway on the westside. The distance from the wall to the street is approximately 10 feet.

Exhibit 2

AMENDED AND RESTATED DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS FOR TRILOGY AT POWER RANCH COMMUNITY ASSOCIATION

Recorded on 2/11/2014

C-4.14 Change of Common Areas. The Board shall have the authority to sell, exchange, convey or abandon any portions of the Common Areas or change the use thereof (and, in connection therewith, construct, reconstruct, alter or change buildings, structures and improvements on or serving any such portions of the Common Areas to accommodate the change or new use) provided that any such action is determined by the Board to be (i) for the benefit of the Owners and Non-Owners of the Property, (ii) consistent with this Declaration and any other covenants or recorded restrictions applicable to the affected portions of the Common Areas and any applicable zoning and other requirements of governmental authorities having jurisdiction, and (iii) consistent with the Community-Wide Standard. Any action taken pursuant to the preceding portions of this paragraph shall be subject to the following conditions and requirements:

4. 14. 1 The Board may act only after (i) the Board adopts a resolution of intent setting forth the intended action and the reasons why the intended action is in the best interests of the Owners and Non-Owners, and (ii) the resolution of intent is approved at a meeting by a Majority of Owners.
4. 14.2 If the Board determines (and the resolution of intent recites) that proposed action under this paragraph will not have a material adverse impact on Owners or the Association, the Board may (in lieu of the meeting provided for) give notice of the proposed action to all Owners and the action shall be deemed approved unless more than 10% of the Owners object in writing to the Board within thirty (30) days following the date on which notice of the proposed action is given by the Board. If written objections to the proposed action are received by the Board from more than 10% of the Owners within the thirty (30) day period, a meeting for consideration of the proposed action shall thereafter be held and the approval requirements of paragraph C-5 .6 shall apply.

Exhibit 3

Copied from mytpr.com Special Ballots, Expansion Vote 2014

"Facts and Proforma Sheet

The Project Plan includes:

A new building housing; a multipurpose room, fitness center, storage, maintenance, restrooms and locker rooms, office space, special physical therapy space, evaluation room, and the massage/facial spa.

The kitchen will be converted to kitchen/cafe space with new up to date equipment. Conversion of the existing patio to a glass enclosed multiuse space that will be heated and cooled for use by the cafe as well as clubs and groups.

Converting the existing fitness center into a multiuse education/theatre/meeting space.

Additional space for the stained glass room and artists.

Additional space for the quilters, craft room, and ceramics.

Conversion of the existing Summit Studio into a game room for the pool tables, shuffleboard table, and other games.

Conversion of the current cafe area into a larger card/multipurpose room.

Conversion of the card room to management office space.

Conversion of the current management office space into three meeting rooms.

Removing the meeting table from the library, leaving the library open at all times. Computers will be available in the library also.

Construction of sports courts for pickleball, basketball, and volleyball.

The Proforma on the reverse side of this page contains the Financial Plan for the project. No special assessment will be required."

New Sports Courts

Future Sports Courts

Other Spaces will be Re-purposed for Meeting Rooms, Clubs, Offices

Game Room

Multi-Purpose Theatre Room

Multi-Purpose Card Room

Remodeled Kitchen/Cafe Multi-Purpose Room

New Multi-Purpose Building 14,700 SF

27,000 SF TRILOGY CLUBHOUSE MAIN ENTRANCE

EXISTING BALLROOM 5,000 SF

ENCLOSED PATIO

NEW FITNESS CENTER 4,800 SF

MULTI-PURPOSE ROOM 3,255 SF

MAINTENANCE

SLATE RESTAURANT

GOLF CLUBHOUSE 12,000 +/- SF

PARKING LOT



Area and plans presented to owners in 2014 prior to the vote, NO indication of common area change outside the area noted in the drawing that is green space, NO restrooms, NO storage areas, NO viewing areas, NO social gathering spaces and NO reconstruction of existing courts.

What Is It? Pickle Ball

- New construction of sports courts
 - Build-out will be adjacent to the existing tennis courts
 - New courts provide separate facilities for fast-growing new sports



- Existing tennis courts
 - Existing courts will support daily Tennis Club activity and league play



Type to enter text



It's About Time

June 23, 2020

TO: Brian Anderson, Chair
Town of Gilbert Planning Commission
50 E. Civic Center Drive
Gilbert, AZ 85296

Reference: Z20-03, DR19-128 Trilogy at Power Ranch Pickleball

Dear Mr. Anderson:

On June 3, 2020 I listened to the Planning Commission Meeting regarding the Trilogy at Power Ranch Pickleball project, as referenced. Ashlee MacDonald was very professional in her presentation, but I was concerned that the Planning Commission Members had not yet had the opportunity to review the files pertaining to this pickleball project. I just want to highlight my concerns, and that of others, who have provided information to the Town of Gilbert regarding this issue.

-A January 2019 petition was signed by eighteen Trilogy homeowners who expressed concerns regarding the proposed East Sport Courts Complex, which included pickleball courts, social area, bleachers (now called a shade structure), lighting and bathrooms. The concerns centered on the noise level that would be generated by pickleball play and additional amenities. These concerns are still valid if appropriate sound abatement techniques are NOT applied. A copy of the petition without listed attachments is attachment (1).

-Noise level. In approximately 2014, the east tennis courts were converted to both tennis and pickleball play. The tennis courts were never an issue; however, the courts went from a maximum of eight tennis players to as many as 32 pickleball players and the noise level increased dramatically. We are concerned over the MD Acoustics Noise Impact Assessment dated June 12, 2019, which was included in the June 3, 2020 presentation. Our concern is that MD Acoustics, in a subsequent letter dated July 9, 2019, confirmed that they DID NOT assess the impulsive sound of the pickleball paddle impacts and stated that they were not hired to measure the impulsive sound of pickleball paddle impacts, nor to predict community response to impulsive sounds.

- Lance Willis, PhD, Spendiarian & Willis Acoustics & Noise Control LLC, provided comments on the original MD Acoustics noise abatement plan. Dr. Willis, in his comments, points out that MD Acoustics, in their noise abatement plan, failed to: correctly measure the impulsive sound of the pickleball paddle impacts, correctly identify and quantify the pickleball paddle impacts as the primary sound source during testing, correctly configure the sound level meter for such a measurement, use appropriate acoustical quantities for assessing short duration impulsive sounds, account for the pickleball paddle impacts in the acoustical model of the proposed site, apply a modern standard and current best practices for community noise assessment that accurately predict community response to impulsive sounds and inform their client of the true outcomes of building the pickleball courts as proposed, specifically continuing complaints from adjacent neighbors and ongoing disputes over noise. Details are set forth in attachment (2).

-An article titled, "Why are Your Pickleball Courts Receiving Complaints from Neighbors" is provided as attachment (3). This article, authored by Dr. Lance Willis, provides insights into the unique sound of pickleball play and its possible impact on neighbors. The article is provided as attachment (3).

-A lot analysis, conducted by an Arizona licensed real estate professional, indicates that fifteen of the eighteen homeowners that signed the January 2019 petition, could possibly see an aggregate diminution in property values exceeding \$280K. The lot analysis spreadsheet is attachment (4).

-Parking. Parking during special events and tournaments has been an issue in the past with vehicles parked on Ranch House Parkway and along other residential streets. There just does not appear to be enough parking spots to handle these events.

-The Trilogy proposal states that in 2014 residents voted to add two new sports courts and in 2016 residents overwhelmingly voted to approve the Trilogy Board of Directors' proposal to spend funds for these additional two courts. My recollection of what we voted on was the addition of the two new sport courts and an approximate cost of \$150,000 and to my knowledge; no detailed plans were made at that time. Now we are looking at over \$700,000 in costs with additional added amenities. The additional items added to the 2014/2016 proposal have never been voted on, and/or, approved by the Trilogy at Power Ranch homeowners.

-Alternative Plan. This Alternative Sport Courts plan that was provided to the Town of Gilbert by Pius Lacher, a Trilogy at Power Ranch resident, shows great promise and provides all the amenities requested by the Pickleball and Tennis Clubs. This new plan will have 8 regulation size pickleball courts and 3 dedicated tennis courts. Additionally, this alternative plan resolves any setback issues allowing all courts to be within the current zoning requirements.

-We are not opposed to the construction of pickleball courts at Trilogy, but want to ensure that the best and most effective, sound abatement techniques are used to ensure that the nuisance level and resulting diminution in property value is minimized to the greatest extent possible. As detailed above, this current plan before you is seriously flawed and should not be considered. The Alternative Plan, showing a possible savings of over \$200,000, will hopefully be considered and pursued by the Trilogy Board of Directors.

Respectfully,



Robert & Michele Hartley
4467 E. Sycamore Drive
Gilbert, AZ 85298
Lot # 224

Attachments:

- (1) January 2019 Petition without attachments
- (2) Spendiarian & Willis Letter
- (3) Why Are Your Pickleball Courts Receiving Complaints from Neighbors
- (4) Trilogy Lot Analysis

Cc: Carl Bloomfield, Vice Chair
David Cavenue, Member
Noah Mundt, Member
Jan Simon, Member
Ashlee MacDonald, Senior Planner
Catherine Lorbeer, Staff Liaison

Attachment (1)

PETITION REGARDING CURRENT AND FUTURE PICKLEBALL NOISE AT TRILOGY AT POWER RANCH

From: Trilogy at Power Ranch Residents as listed below

To: Town of Gilbert Town Council Members and Development Services
50 E. Civic Center Drive
Gilbert, AZ 85296

Copy to: Trilogy at Power Ranch Board of Directors, Management Team, and Facilities Committee
4369 E. Village Pkwy
Gilbert, AZ 85298

Dear Mayor, Vice Mayor, Councilmembers, Development Services-Planning

The Trilogy at Power Ranch HOA, at a Town Hall meeting on 12/18/2018, presented a proposal for an expanded Sports Complex, attachment (1) pertains. The details of the new proposed Sports Complex will include additional pickleball courts, new tennis courts, a social area, bleachers, lighting and bathrooms.

The undersigned Trilogy homeowners have specific concerns with the proposed east portion of the proposed Sports Complex, attachment (2) pertains.

In approximately the spring of 2014, the existing two east tennis courts were converted from tennis to both tennis and pickleball use. The noise went from a gentle thump of the tennis balls with a maximum of eight players using the two tennis courts to a sharp clacking noise of the pickleballs with as many as 32 people playing pickleball. Needless to say, the increase in the noise level, both from the noise of the pickleball matches and accompanying conversations, is overwhelming for residents with homes located adjacent to the now converted pickleball courts, to annoying for many other residents in the area. Residents in the homes, just east of the converted pickleball courts, can no longer enjoy their back porches when the pickleball courts are being used, cannot open their windows and doors and often are awakened by the noise of the pickleball players using the courts, weather permitting, from sun up to sun down. The only saving grace is that when the sun goes down, the noise stops because these courts do not have lighting. Only then are the homeowners finally able to enjoy their back porch, open their windows and doors, carry on conversations and enjoy the unobstructed views.

Some residents, starting in 2014, have previously voiced their concerns to members of the Trilogy HOA Board of Directors, Ian Welsh, Executive Director and members of the Facilities Committee, both in person and in writing, but nothing to date has been done to address their concerns. To our knowledge, an Acoustical Consultant has not been consulted. Now with the planned east expansion, which includes a new tennis court, numerous additional pickleball courts, social area, bleachers, lighting and bathrooms, the noise level will be unbearable for not only the residents located adjacent to the pickleball courts, but for many other residents living in close proximity. Some of the residents listed below live across the golf course (in a southerly direction) and can already hear the noise from the existing pickleball courts. After the completed construction of the additional pickleball courts, the tennis court, social area, bleachers, lighting and bathrooms, they will also have restricted use of their back porches because of the noise and lighting and will be unable to open their windows and doors. We anticipate that after the installation of the lighting to the east courts, the courts will be open from sun up to 10:00 p.m.

We ask that you please address our concerns. If the Sports Complex expansion is approved, perhaps sunken courts, sound barrier walls, sound absorption materials on all fencing, softer paddles, cushioned balls, restricted hours around the east Sports Complex and no lighting, or restricted lighting with the courts only being used between 9:00 a.m. to 6:00 p.m., will greatly improve the quality of life for many homeowners.

Our last concern is that if no action is taken, this proposed east Sports Complex will adversely affect our home values. Several realtors have indicated that the value of our homes will decrease if our concerns are not addressed. Many of us paid thousands of dollars in lot premiums, and if the new east Sports Complex is completed without our issues being addressed, we will never recover our financial investment. Many of us are senior citizens and retired and paid the extra lot premiums to be able to sit out on our back porches, enjoy the night sky, the quiet and the views. When we originally purchased our homes, and paid the extra lot premiums, there was no noise issue.

It is our understanding that the new Gilbert Regional Park opening in the fall of 2019 will have pickleball courts. It is less than five minutes away from Trilogy and the pickleball players will have new courts to play on. Trilogy has so many beneficial amenities, and we cannot think of any of them that would have a negative impact on the residents except the pickleball courts because of the noise level, forced lighting, congestion, and property devaluation for some in order to benefit others.

Tennis courts, the golf course and the Slate Restaurant, which often has outdoor social events on their patio, with lights and music also has never been an issue. The music is never loud and of course there is a big difference between music and the sound of pickleball play as described above.

The Trilogy management team has described the proposed project as "state of the art", which should include solving known issues experienced in other communities. We do not want to repeat the mistakes made by other communities.

We respectfully request that Trilogy have an expert, preferably an Acoustical Consultant, evaluate the current noise level of the pickleball courts, when in use, and the potential noise level that will be generated by the additional proposed pickleball courts, planned social area, bleachers and bathrooms.

Attachment (3) is a satellite view of the current courts and homes that surround the area, with some homeowners experiencing a significant noise issue now and others that will potentially see a noticeable increase in the noise level if noise reduction methods are not addressed in the proposed new east Sports Complex.

Attachment (4), titled, "Why Are Your Pickleball Courts Receiving Complaints from Neighbors", is but one of numerous articles addressing the noise issue caused by pickleball play.

Trilogy at Power Ranch

PETITION REGARDING CURRENT AND FUTURE PICKLEBALL NOISE

Dated: January 1, 2019

Attachments:

- (1) Details of Sports Courts Town Hall Meeting, dated December 19, 2018
- (2) Overview of East Sports Courts, dated December 19, 2018
- (3) Satellite View of current courts and surrounding neighborhoods
- (4) Article titled "Why Are Your Pickleball Courts Receiving Complaints from Neighbors".
- (5) Copy of a recent post by a Trilogy at Power Ranch resident on website "Next Door" regarding new proposed pickleball and tennis courts.
- (6) Trilogy at Encanterra. Please note the photographs depicting sunken pickleball courts, sound walls, and no lighting. Visit the pickleball website at <https://encanterrapickleball.com>

To: Kyle Mieras, Director of Development Services
Town of Gilbert
90 E. Civic Center Drive
Gilbert, AZ 85296

Comment: This petition does not ask for the rejection of the project, but simply a complete impact study and engineered solutions that address our concerns.

Attachment (2)



Spendiarian & Willis Acoustics & Noise Control LLC

The Form and Function of Sound

(520) 623-6003

AcousticalNoise.com

4335 N Alvernon Way, Tucson, AZ 85718

Tuesday, June 11, 2019

Robert Hartley
4467 E. Sycamore Drive
Gilbert, AZ 85298

Dear Mr. Hartley,

This letter comments on the noise abatement plan prepared by MD Acoustics dated May 28, 2019 and the application of the Gilbert Town Code Section 42 to address the new pickleball courts planned for Trilogy at Power Ranch at E. Village Parkway and S. Meadowbrook Road.

The sound produced by the impact between a pickleball and paddle is characterized by a sudden onset and brief duration, typically on the order of two thousandths of a second for the direct path sound. The spectral content of the paddle impact is narrowband with a center frequency typically between 1,000 and 2,000 Hertz. Although it does not meet most guidelines for tonal prominence such Annex C of ANSI S12.9 Part 4 or ANSI S1.13, it does impart a vague sensation of pitch. The acoustic radiation pattern of the paddle is more or less a dipole or figure eight pattern, i.e. most of the sound from the front and back of the paddle is of opposite polarity and cancels itself in the plane of the paddle. Therefore, orienting the courts so that the direction of play is not aligned with noise sensitive areas can provide some attenuation.

The general guidelines and procedures for characterizing impulsive sound given in the Town of Gilbert Municipal Code Sec. 42-61(d) do not directly address the community noise impact of very short duration impulsive sounds such as pickleball paddle impacts. The Gilbert Town Code Section 42-61 has a number of issues with consistency and a lack of provisions for specific types of sound such as impulsive sounds. Section 42-61(e)(1) sets sound pressure level limits inside a closed residential structure at 55 dBA during the day and 45 dBA at night. These are extraordinarily high limits to allow inside a residential dwelling, exceeding US Department of Housing and Urban Development requirements for project funding by 10 dBA. They are, however, common sound pressure level limits set by many municipal codes for exterior sound pressure levels. In fact, in the next section, 42-61(e)(2), the code gives provisions to use these same limits at a property boundary. These conditions are not equivalent use cases and the criteria are not interchangeable. MD Acoustics did appropriately apply the limits at the property line according to (2) and not as an interior level not as stated in (1); however, the methodology they

Spendiarian & Willis Acoustics & Noise Control LLC

June 11, 2019

1 of 8

used to assess the impulsive sound produced by the impact of the pickleball and paddle is not based on current best practices as discussed below.

In the MD Acoustics report Mr. Pearson states, "MD conducted the sound level measurements in accordance to the FHWA [Federal Highway Administration] technical noise specifications." Applying a road noise test protocol written for a broadband continuous sound source to a short duration impulsive sound source such as pickleball paddle impacts is wholly inappropriate and will grossly underestimate the community noise impact of the impulsive sounds. The report states that "slow" exponential time weighting was used. It is permissible to use the slightly more sensible "fast" setting option as stated in the Gilbert code section 42-61(d); however, this is nowhere stated in the report. Noise input and output data for the acoustical site model is stated to be given in Appendix B, but this is not included in the copy of the report available.

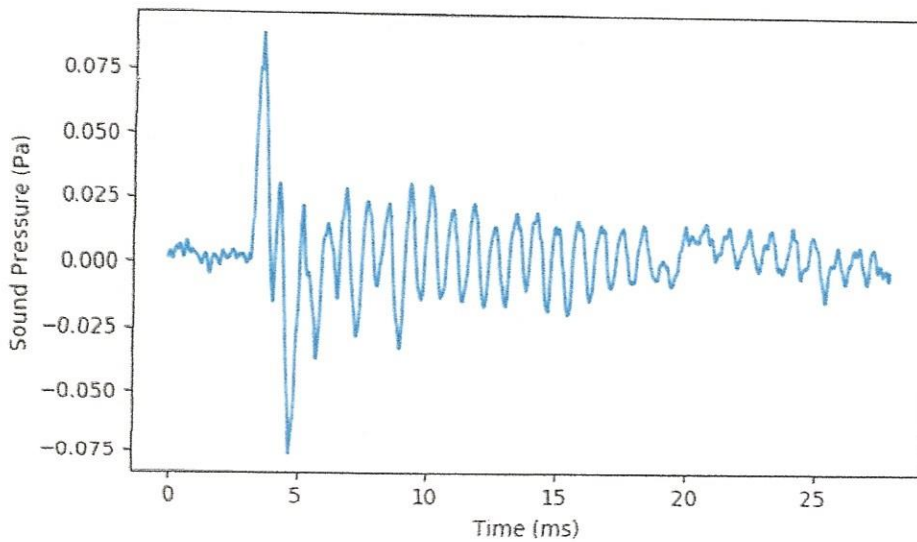


Figure 1. Sound Pressure Impulse Produced by Pickleball and Paddle Impact. Time is in milliseconds (0.001 seconds)

The time constant for slow exponential time weighting is 1.0 second. For fast exponential time weighting it is 0.125 seconds. From testing at pickleball sites performed by Spendiarian & Willis, it is known that the duration of the acoustical impulse produced by a paddle and ball impact is about two milliseconds or 0.002 seconds as shown in Figure 1, two orders of magnitude less than the time constant of the fast exponential time averaging filter. The impulse in Figure 1 was captured at a site in Prescott, Arizona. The actual distance from the pickleball paddle to the sound level meter was between 150 and 250 feet. The sound level meter was approximately 45 degrees off of the axis of play on the courts. The instantaneous peak sound pressure was 86.1 Pascal or 72.7 dB sound pressure level with no frequency weighting. Figure 2 shows that the paddle impact radiates acoustically as a narrowband peak that typically falls between 1,000 and 2,000 Hertz.

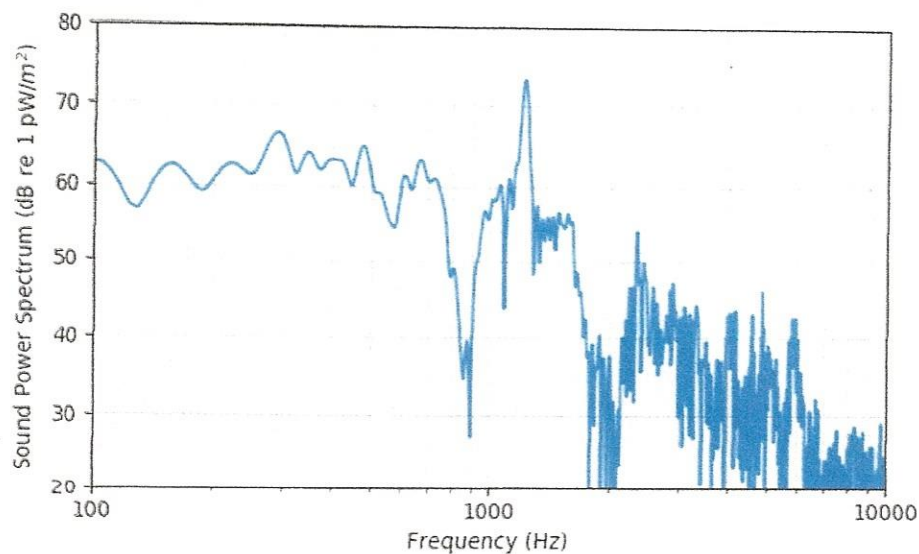


Figure 2. Frequencies Produced by a Pickleball and Paddle Impact (No frequency weighting applied)

Based on the contents of the MD Acoustics report and comments made at the May 29 meeting, Mr. Pearson does not appear to be aware of the paddle impulse duration or its importance in relation to the exponential time weighting used in the measurement of the L_{max} parameter. Applying exponential time weighting to pickleball paddle impacts places the impulse outside the passband of the exponential time averaging filter and attenuates the L_{max} sound pressure level reading of the impulsive sound by approximately 18 dB for the fast setting. Using the slow setting will result in an additional 18 dB of attenuation. These are very large measurement errors.

To further illustrate the response of a fast exponential time averaging filter to impulsive sound, Figure 3 demonstrates the filter response to a burst of sound just long enough to achieve an accurate reading within 0.5 dB of the true sound pressure level. The red curve represents the envelop of a burst of sound 0.277 seconds in duration. This is the time required for the output of the fast exponential time averaging filter (blue curve) to rise to within 0.5 dB of the actual sound pressure level of the sound burst. When the sound burst ends, the output of the exponential time averaging filter begins to decay. The peak value in the output of the fast exponential time averaging filter, after being converted to sound pressure level, is known as the L_{max} level.

Figure 3 shows the behavior of the fast exponential time averaging filter and L_{max} when used properly. Figure 4 illustrates how the fast exponential time averaging filter responds to a typical pickleball paddle impact. Note that the time scale has been greatly reduced for clarity. At the end of the 0.002 second impulse, the fast exponential time averaging filter has only had time to rise to a level that is 18 dB below the true sound pressure level of the impulse. The pickleball paddle impulse is so much shorter than the time constant of the averaging filter that the exponential curvature of the filter response is not even visible. It is clear that fast exponential time weighting, much less slow exponential time weighting, cannot be used to assess the noise impact of pickleball paddle impacts.

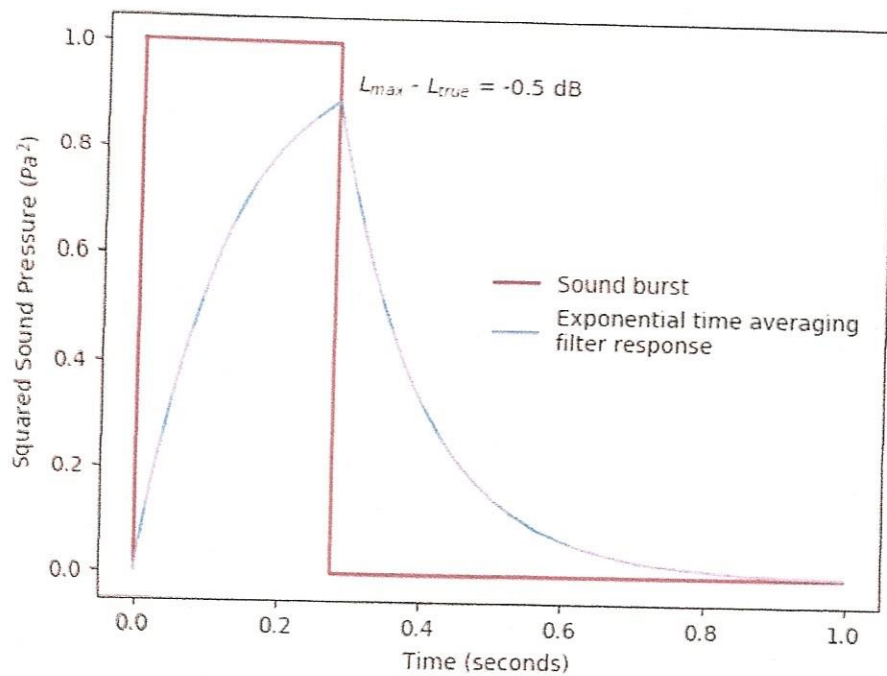


Figure 3. Fast Time Averaging Filter Response to a 0.277 Second Sound Burst

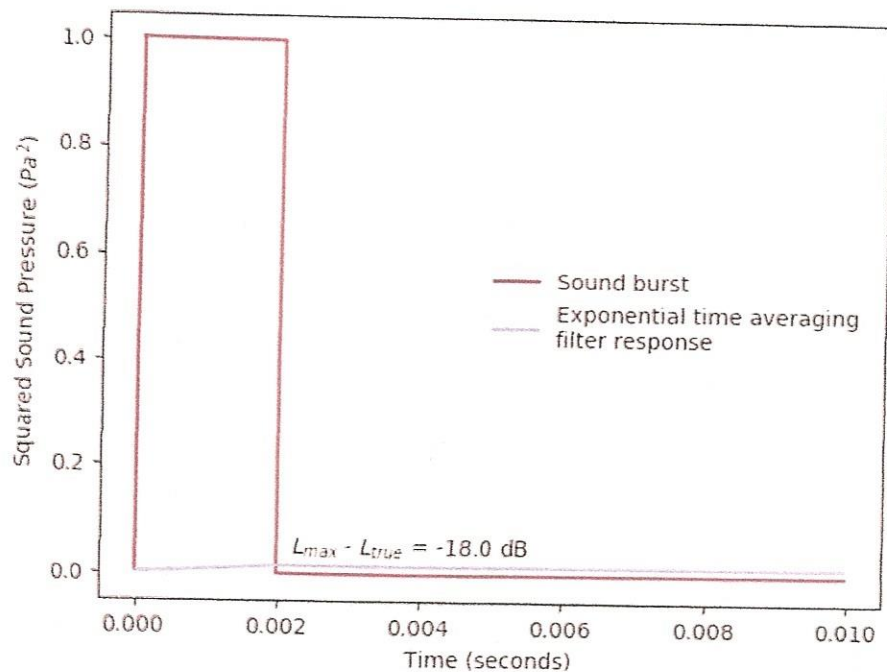


Figure 4. Fast Time Averaging Filter Response to a Typical Pickleball Paddle Impact

Section 5.0 of the MD Acoustics report states, "L_{max} represents the instantaneous sound of the ball hitting the paddle." This is factually incorrect. As seen in Figures 3 and 4, L_{max} is the output of an exponential time averaging filter, not an instantaneous sound pressure level. This underscores the importance of understanding how transient sounds are quantified, how sound level meters work, and the critical necessity of looking at one's data when working with impulsive sounds. L_{max} is normally, but not always, defined as the maximum *fast* exponential time weighted sound pressure level; however, "slow" is stated in the MD Acoustics report. In either case, L_{max} is the output of an exponential time weighting filter, i.e. an averaged level, and not an instantaneous peak sound pressure level which is much higher for impulsive sounds. With slow exponential time weighting the measurement error is about 36 dBA for pickleball paddle impacts.

In the meeting on May 29, Mr. Pearson was asked by a Power Ranch resident about the frequencies produced by the paddle impacts. Mr. Pearson said he had not looked at that and did not know. This is curious since the diffraction model for the sound wall he recommended would have required an input in the form of octave band or fractional octave band sound pressure data. If Mr. Pearson did not know the frequency band sound pressure levels of the paddle impacts then what did he use as the input to the sound wall attenuation model? Given that the report only describes equivalent-continuous (L_{eq}) and exponential time weighted (L_{max}) sound pressure levels that in all likelihood could not possibly indicate the contributions from the paddle impacts over the competing background noise due to either filter attenuation in the L_{max} values or spreading the impulsive energy over the entire measurement time as in the L_{eq} values, MD Acoustics has in no way demonstrated that they have characterized the sound of the paddle impacts. It appears instead that the acoustical model used by MD Acoustics to recommend noise abatement treatments for the proposed site was based on the speech noise generated by the pickleball players and not the paddle impacts. However, this cannot be confirmed either.

The point of this discussion is not to say that the analysis performed by MD Acoustics is in error by 18 or 36 dBA. The point is that MD Acoustics has not measured the paddle impacts at all. The incorrect sound level meter configuration used during testing filtered out the main sound source of interest, namely the pickleball paddles. The source of the sound pressure levels given in the report, including particularly the L_{max} readings, is unconfirmed by Mr. Pearson's own admission. If Mr. Pearson does not know the frequency content of the paddle impacts, the acoustical model for the abatement plan cannot have been based on the paddle impacts. It is also indicative that the report does not mention the spectrum of the paddle impacts and the words "impulse" and "impulsive" do not appear at all.


The results of the acoustical analysis will not be commented on since the inputs to those models were clearly flawed. Spendiarian & Willis has worked with numerous pickleball installations in Arizona and elsewhere over the last 10 years. In that time we have never seen pickleball courts located this close to single family homes that did not receive noise complaints. The recommended eight foot wall will not be sufficient to abate the impulsive sound from the courts, nor does the abatement plan provide for any shielding of homes to the north of the courts or the practice putting green to the southeast. Our experience does, however, lead us to believe that a satisfactory noise result can be achieved by placing the pickleball courts near the entrance driveway and farther from the homes. A noise abatement plan involving sound walls and lowering the pickleball courts into the ground would in all likelihood be feasible at this location.

In summary, the noise abatement plan prepared by MD Acoustics has failed to:

- Correctly measure the impulsive sound of the pickleball paddle impacts
- Correctly identify and quantify the pickleball paddle impacts as the primary sound source during testing
- Correctly configure the sound level meter for such a measurement
- Use appropriate acoustical quantities for assessing short duration impulsive sounds
- Account for the pickleball paddle impacts in the acoustical model of the proposed site
- Apply a modern standard and current best practices for community noise assessment that accurately predict community response to impulsive sounds
- Inform their client of the true outcomes of building the pickleball courts as proposed, specifically continuing complaints from adjacent neighbors and an ongoing dispute over noise
- Accurately present to the neighboring home owners and the Town of Gilbert the true noise impacts of the pickleball courts using modern standards and best practices
- Provide any shielding for homes on the north side of East Village Parkway that will be within 90 feet of the pickleball courts

In light of the inconsistencies of the Gilbert Town Code Section 42-61 and its failure to provide any protections to residents for short duration impulsive noise, it is recommended to invoke Section 42-64. Under Section 42-64(b) item 14, the Town has the discretion to apply a more accurate and up to date standard to assess the noise impact of impulsive sounds. The noise assessment procedures for highly impulsive sounds in ANSI S12.9 Part 4, including a weekend adjustment since residents are usually home when the pickleball courts are in use, would be a good choice to get an accurate assessment of the noise impact of the proposed pickleball courts.

regards,



R. Lance Willis, PhD
Principle Acoustical Engineer

June 11, 2019

Spendiarian & Willis Acoustics & Noise Control LLC

8 of 8

Attachment (3)

Why Are Your Pickleball Courts Receiving Complaints from Neighbors?

by Lance Willis
Posted on April 25, 2018

[Home](#) [About Us](#) [Contact](#)

Pickleball is a game played with a paddle and ball on a converted tennis court or dedicated asphalt pad. It has become very popular in retirement resort communities and other recreation centers.



Unfortunately, some developers of pickleball courts have not adequately addressed the sound produced by the impact of the hard paddle and ball which creates a sharp pop. This has led to controversy between facility owners and neighbors when new pickleball courts are planned.

Here in Arizona and elsewhere we have planned and mitigated many of these sites. We have had the opportunity to work with both pickleball clubs and home owners associations. In this post we will outline the process we have developed to evaluate the noise impact of pickleball courts and to enable pickleball to coexist with the surrounding community.

Characteristics of Pickleball Sound

The sound produced by the impact between a pickleball and paddle is characterized by a sudden onset and brief duration, typically on the order of two milliseconds for the direct path sound. Figure 1 shows a time trace of a pickleball paddle impact measured near Phoenix, Arizona. The main part of the direct sound impulse can be seen to be less than two milliseconds followed a rapid decay and some later reverberant arrivals.

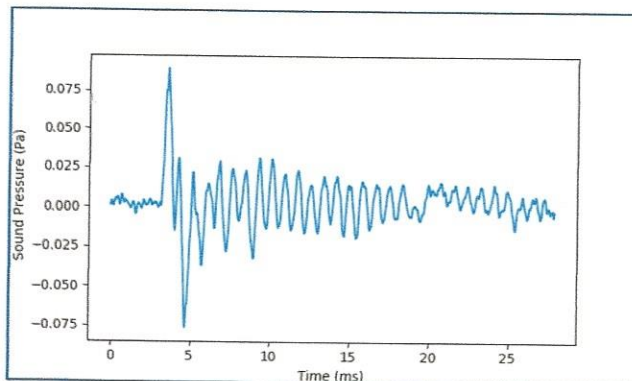


Figure 1. Paddle Impact Time Trace

The spectral content of the paddle impact is narrowband with a center frequency typically between 1,000 and 2,000 Hertz (see Figure 2). Although it does not meet most guidelines for tonal

prominence such as Annex C of ANSI S12.9 Part 4 or ANSI S1.13, it does impart a vague sensation of pitch similar to a musical wood block percussion instrument. The radiation pattern of the paddle is more or less a dipole, i.e. the sound from the front and back of the paddle is of opposite polarity and cancels itself in the plane of the paddle. Therefore, orienting the courts so that the direction of play faces away from noise sensitive areas can provide some attenuation.

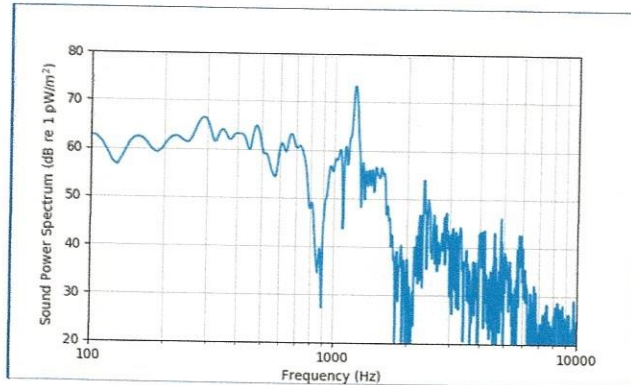


Figure 2. Paddle Impact Power Spectrum

Measuring Pickleball Sound

Due to the short duration of the impact, averaging sound pressure level metrics such as equivalent level (L_{eq}) and even maximum fast exponential time weighted level (L_{max}) fail to accurately represent the perceived loudness of the impact. The fast exponential time weighting filter is a first order lowpass filter with a 125 millisecond time constant applied to the square of the acoustic pressure waveform. If a tone burst is applied to the squaring circuit and filter, after two milliseconds the filter output will only rise to a level that is 18 dB lower than the root-mean-square or equivalent level of the input signal. Because the short impulse is being significantly attenuated by the averaging in the sound level meter, in practice it is in general not possible to distinguish pickleball paddle impacts from the background noise when measuring L_{eq} or L_{max} using an integrating sound level meter even though the paddle impacts may be identified by a listener as the primary sound source.

The paddle impact sound pressure level is better represented by the sound exposure level (SEL). This involves windowing the measured sound pressure in time to include only the paddle impact and reflections from nearby surfaces. The equivalent sound pressure level of the windowed impact is then normalized to the length of the window giving a representation of the energy in the impact alone. Appropriate adjustments for impulsive sounds can then be applied to the impacts as described next.

Most acoustical standards for sound pressure levels with regard to compatible land use provide adjustment factors for different types of sound, e.g. impulsive, tonal, time of day, etc. Each of these categories of sound produces different levels of community impact and annoyance due to their temporal or spectral characteristics in comparison to a broadband sound that does not vary in level or frequency content with time. The purpose of the adjustment factors is to normalize these types of sound to a neutral broadband sound pressure level so that they can be reasonably compared to a defined sound pressure level limit or the background noise level.

ANSI S12.9 Part 4 gives criteria for assigning adjustment factors to a variety of impulsive sounds. Sounds produced by many impact processes are classified as 'highly impulsive' and assigned a 12 dB adjustment. Although not specifically enumerated in definition 3.4.1 of the standard, experience has shown that pickleball paddle impacts should be adjusted as highly impulsive sounds in order to set appropriate performance goals for abatement treatments. Inadequate abatement treatment may lead to ongoing complaints, strained relations with neighbors, legal action, the need for continued involvement on the part of authorities, additional retrofitting, and possibly demolition costs to improve the abatement later.

Site Planning Considerations for Pickleball

Based on our experience working with pickleball facilities, courts located within 350 feet of residential structures often require abatement. Courts located within 150 feet require careful abatement design to avoid complaints.

Abatement treatments usually consist of freestanding walls strategically placed to shield noise sensitive areas from the pickleball courts. To be effective, the walls must block the line of sight to the paddles during play. On level terrain this means a minimum wall height of eight feet above the playing surface. The cost of the walls can be reduced by lowering the courts into the ground and using the excess soil to build a berm around the courts. Placing the wall on top of the berm will lower the required height of the wall itself, reducing construction costs. The wall may be masonry or a solid fence system having sufficient mass for effective sound insulation.

For pickleball courts located in the middle of a residential area with houses on more than two sides, screen walls may be required on opposite sides of the courts. When these walls are parallel to each other, reflections between them can degrade the performance of the walls significantly. In this case, sound absorbing panels may need to be installed on one or both walls

to stop multiple reflections from amplifying the sound going over the walls. This can almost double the cost of the walls and may make the site financially unfeasible.

Court orientation also plays a role. More sound propagates in the direction of play than to the sides of the pickleball court. By positioning the courts so that the line of the net runs through the most noise sensitive area, a noticeable reduction in sound pressure level can be achieved at this location.

When to Hire an Acoustical Consultant

We recommend that pickleball courts to be located within 500 to 600 feet of residential properties or other noise sensitive areas be reviewed by an acoustical engineer during the site selection phase in order to avoid choosing a site that is expensive to mitigate, results in unexpected limitations on court use, or leads to ongoing disputes with neighbors. For sites that have a water feature or golf course as part of the intervening ground between the courts and homes or for sites located in a valley, it may be necessary to consider abatement at buffer distances greater than 500 to 600 feet due to additional refraction effects created in these situations.

The abatement plan for the site should be prepared by an acoustical engineer with experience in assessing the community impact of short duration impulsive sounds such as those produced by pickleball paddle impacts. As can be seen from procedure outlined above, properly measuring sound from pickleball courts is not a simple matter of setting up a sound level meter and logging an equivalent sound pressure level (L_{eq}). The short duration impulses produced by the paddle impacts require a detailed process of applying a metric that can accurately represent the community noise impact of the pickleball courts.

If you are in the process of planning pickleball for your site, consulting an acoustician can reveal unforeseen issues with the selected courts site or the site plan before investing tens or hundreds of thousands of dollars in design and construction. Preparing a formal abatement plan can also ease concerns of neighbors about the community noise impact of the courts.

If you would like us to help plan or mitigate your pickleball courts, [contacts us](#) today for more information.

This entry was posted in [Noise Control](#). Bookmark the [permalink](#).

4 Responses to *Why Are Your Pickleball Courts Receiving Complaints from Neighbors?*

Patrick T Neary says:

September 26, 2018 at 7:12 am

Hello,

I live on the property line of the Yellowstone Golf and Country Club in Billings, MT. The Club proposes to place a pickleball court extremely close to my property line, within 50 feet! I have apprised them of the problem and referred them and their architect to your studies. I am also seeking legal counsel. The club manager states they were not aware of the problem. Do you have a comprehensive list of the pickleball studies you have performed nationally, or other information concerning the volume of complaints, lawsuits, etc. related to pickleball nationally? I am obviously, trying to build a case for redesign, distancing from my (and others') property, mitigation, etc. Thank you.

Lance Willis says:

September 26, 2018 at 9:30 am

50 feet is very close. Pickleball courts placed at this distance from residential properties usually result in complaints without significant mitigation. A list of some of our [environmental acoustics projects](#) is available on the website. We'll try to put up a category for pickleball in the near future. The best way to proceed would be for the country club to contact us and discuss doing a noise abatement plan for the proposed courts site. That would enable them to address any community noise impact issues before they become a problem that is expensive to retrofit.

Linda waldman says:

January 23, 2019 at 8:55 am

Pickle ball courts were built within forty feet of our residence. Not only is the pickle ball noise loud, but the players scream as loud as possible while playing. Can anything be done legally.

Lance Willis says:

January 23, 2019 at 10:52 am

This will depend on the noise legislation for your area. Every county and municipality has a different standard for defining nuisance noise and how to measure it. In most cases, regulations for impulsive sound are not defined by these ordinances and so we rely on the ANSI standards mentioned in the post. Enforcement is usually handled through your local police or department of developmental services. If the site owners would like to mitigate the impact on neighboring properties they can contact us to discuss creating a noise abatement plan.

Attachment (4)

Trilogy lot analysis - Pickleball

| Lot # | Sq. footag | Bed | Bath | Den | Lot Size | Lot Type | Disturbance level | Current Market Value | Value Impact | \$ amount decrease | New Value |
|-------|------------|-----|------|-----|----------|-------------------------|-------------------|----------------------|--------------|--------------------|--------------|
| 77 | 1605 | 2 | 2 | | 6413 | Neighborhood/Open | 3 | \$ 327,307.65 | 30% | \$ 6,873.46 | \$320,434.19 |
| 219 | 1650 | 2 | 2 | | 5891 | West BY | 10 | \$ 336,484.50 | 100% | \$ 23,553.92 | \$312,930.59 |
| 220 | 1407 | 2 | 2 | | 5303 | West BY | 10 | \$ 299,592.51 | 100% | \$ 20,971.48 | \$278,621.03 |
| 221 | 1650 | 2 | 2 | | 7570 | West BY | 10 | \$ 336,484.50 | 100% | \$ 23,553.92 | \$312,930.59 |
| 222 | 1650 | 2 | 2 | | 9805 | West BY | 10 | \$ 336,484.50 | 100% | \$ 23,553.92 | \$312,930.59 |
| 223 | 1650 | 2 | 2 | | 7003 | GC | 9 | \$ 325,675.35 | 90% | \$ 20,517.55 | \$305,157.80 |
| 224 | 2114 | 2 | 2 | Yes | 5741 | GC | 8.5 | \$ 463,621.34 | 80% | \$ 25,962.80 | \$437,658.54 |
| 226 | 1308 | 2 | 2 | | 6124 | GC | 7.5 | \$ 286,857.48 | 70% | \$ 14,056.02 | \$272,801.46 |
| 228 | 1650 | 2 | 2 | | 7489 | GC | 6.5 | \$ 361,861.50 | 60% | \$ 15,198.18 | \$346,663.32 |
| 251 | 1437 | 2 | 2 | | 8515 | Corner | 9 | \$ 321,279.43 | 90% | \$ 20,240.60 | \$301,038.83 |
| 607 | 2164 | 2 | 2 | Yes | 7293 | GC | 7.5 | \$ 474,586.84 | 70% | \$ 23,254.76 | \$451,332.08 |
| 609 | 2114 | 2 | 2 | Yes | 5775 | GC | 7 | \$ 463,621.34 | 65% | \$ 21,094.77 | \$442,526.57 |
| 610 | 1604 | 2 | 2 | Yes | 5610 | GC | 6 | \$ 422,127.89 | 50% | \$ 14,774.48 | \$407,353.41 |
| 611 | 2142 | 2 | 2 | Yes | 5712 | GC | 6.5 | \$ 469,762.02 | 60% | \$ 19,730.00 | \$450,032.02 |
| 633 | 2231 | 2 | 2 | Yes | 7800 | GC | 5 | \$ 513,744.64 | 40% | \$ 14,384.85 | \$499,359.79 |
| 680 | 2231 | 2 | 2 | Yes | 11491 | Neighborhood/Cul-de-Sac | 0 | \$ 474,475.69 | 0% | \$ - | \$474,475.69 |
| 696 | 1308 | 2 | 2 | | 6891 | Neighborhood/Cul-de-Sac | 0 | \$ 278,512.44 | 0% | \$ - | \$278,512.44 |
| 1430 | 2114 | 2 | 2 | Yes | 6037 | Neighborhood | 0 | \$ 408,720.76 | 0% | \$ TOTAL - | \$408,720.76 |

Current Market Value is what the Home will sell for without the pickleball court disturbance

Decrease in home value is based on installation of pickleball courts using current HOA proposal

Homes affected by the courts can expect to take, average, 26 additional days to sell

\$287,720.71

June 22, 2020

Planning Commission

Town Hall Administration
50 E. Civic Center
Gilbert, AZ 85296

TO: Planning Commission Members

Brian Anderson, Chair
Carl Bloomfield, Vice Chair
David Cavenue
Noah Mundt

Jan Simon
Philip Alibrandi, Alternate
Nathan Mackin, Alternate

FROM: Gary and Betty Butler
5024 So. Peachwood Drive, Lot #219
Gilbert, AZ 85298

RE: Trilogy at Power Ranch Pickleball – 220.03, DR19-128

We are residents, Trilogy at Power Ranch, Gilbert, Arizona, whose home is located 60' from the proposed Tennis Court/Pickle Ball Court Repurposing Plan that was presented to the Town of Gilbert, Planning Commission, on June 3, 2020. We have concerns regarding the proposal submitted.

- The plan presented by the Trilogy Board of Directors to the Town of Gilbert on June 3, 2020 is not even close to the only plan voted on and passed by the Trilogy homeowners in **2014**.
- The new Proposed Plan presented now includes social area, restrooms, lighting and viewing area that were not in the original Sports Courts Plan voted on passed in 2014. If the repurposing plan submitted is approved as presented, we will have the additional noise from the social area, restrooms, lighting area, and shade canopy viewing area that will be adjacent to our home. These items were not approved by a Homeowner's vote.
- Noise Control. Information received from Dr. Lance Willis, Spendiarian & Willis Acoustics & Noise Control, LLC, Tucson, Arizona, indicates that the firm the Trilogy Board of Directors hired (MD Acoustics, Phoenix, Arizona) failed to correctly measure the impulsive sound of the pickleball paddle impacts. In a July 9, 2019 letter, MD Acoustics indicated that they were not hired to measure the impulsive sound of pickleball paddle impacts. The recommended eight-foot wall proposed by MD Acoustics will not be sufficient to abate the impulsive sound from the pickleball courts. (Details were submitted earlier for the Town of Gilbert file).
- Lighting - Court lighting has not been an issue in the past. The East Courts adjacent to our homes were not lighted. The new proposal includes lighting for these courts and the other added amenities not included in the original Sports Court Plan of 2014.
- The tennis courts that are located on the East side behind our home were never an issue until they were converted to pickleball courts. The tennis courts, golf course, Slate Restaurant, which often hosts outside events with music, have never been an issue. The difference between golf events, Slate Restaurant, and tennis events cannot even compare with the noise generated by pickleball.
- We were told by previous Board of Directors that the tennis courts on the East side of the plan would remain as a buffer between our houses and the pickleball courts.

- Parking – The new Proposed Plan does not allow enough parking for tournaments and special events. Excess vehicles to these events end up parking on Ranch House Road (the main entrance to Trilogy) and overflow into the adjoining neighborhood streets, including Peachwood Dr. It could be difficult for emergency vehicles to answer calls because of congestion created by overflow parking.
- Property Value. We have been informed by a Real Estate professional, familiar with homes in Trilogy, that if this Trilogy proposal is completed, as currently proposed, we could possibly see an \$22,000-\$25.000 loss of our property value.
- Alternative Plans have been presented to the Trilogy Board of Directors that would solve a majority of the issues and would not require a zoning request to amend the setbacks scheduled for July 1, 2020 hearing. It would provide a compromise to the homeowners and pickleball players. It would be beneficial to everyone.
- We believe Trilogy should have pickleball courts because it is a great sport, but the position of the courts, social area, bathrooms, viewing area and sound walls need to be constructed in a proven matter. There are Alternative Plans that would solve a majority of the issues, and we are willing to compromise. This current proposal is a disaster and seriously flawed.
- We request that the Planning Commission turn down or table the request to change the zoning setback as there are alternative plans, that would not require a change in zoning?

Sincerely,

Gary and Betty Butler

cc: **Jenn Daniels, Mayor**

Ashlee MacDonald, Senior Planner
Scott September, Council Liaison
Catherine Lorbeer, Staff Liaison

Mayor Jenn Daniels
Town of Gilbert
50 Civic Center Drive
Gilbert, Arizona 85296

April 29, 2020

Re: Trilogy at Power Ranch Proposal

Dear Mayor Daniels:

About two years ago, the Trilogy Executive Director formed a small advisory group to design reconstruction of our Sport Courts. This team met in secret with no public input, no announced meetings, and no published minutes. The Trilogy Board then submitted the Plan this group recommended to the Town of Gilbert for approval. That Proposal was rejected by TOG staff because it was not in compliance with TOG set-back codes. This proposal had the support of the tennis and pickleball clubs, but neighboring homeowners vehemently objected to the proposal fearing property value and long term lifestyle loss. The homeowners hired a noise abatement specialist and a legal firm to assist them who have filed many pages of data supporting the plight of these homeowners with the Town of Gilbert.

Upon receipt of the Proposal rejection, the Trilogy Board then authorized up to \$40,000 to hire an attorney to seek a set-back variance from the TOG. At that point three members of the past and current Planning Committee explored an alternative to the rejected Proposal that could possibly provide the same tennis and pickleball amenities, solve the concerns of the impacted homeowners, comply with TOG set-back codes and noise ordinances, and bring peace to a divided community. By re-designing the layout, we created an alternative plan that accomplished all of these objectives.

We have attached a Concept for Discussion we had planned to present to the Board of Directors and the community residents.. The copies of the attached slides are absent the audio presentation we planned to use. Unfortunately within a few days after we finalized our alternate Concept our community was shut down to help curtail the spread of the coronavirus and large group gatherings may not be possible for some time. We did reach out to the Board and their Advisory Team and a meeting to study this alternative Concept will take place when group meeting can again take place. Trilogy is not equipped to have group meetings of any size to take place via teleconference. We have asked the Board why we are spending \$400 an hour for an attorney to seek a set-back variance we don't need.

We can't control when or if an application seeking a set-back variance reaches the TOG. We can't control how the TOG will handle such an application if received. We know code variances are reluctantly issued as they set precedence. We want the TOG to be aware that the necessary upgrade to Trilogy's Sport Court Project with all amenities can take place within TOG set-back codes and noise ordinances, so a variance is not needed. We want the TOG to know with this alternate Concept attached, the fears of neighboring homeowners that has caused the volume of correspondence from the Provident Law Firm to the TOG on their behalf, are eliminated and these homeowners are happy with the alternative

Concept. Approval of the initial Project Plan submitted by the Trilogy Board earlier will undoubtedly lead to a lawsuit for damages. How sad when this can be avoided.

A previous Alternative Plan submitted by Chuck Meyer over a year ago is withdrawn in favor of the Concept we are proposing.

A copy of this letter and Concept is being forwarded TOG personnel below. Please forward as you wish.

Respectfully,

A handwritten signature in black ink, appearing to read 'Pius J. Lacher', with a long, sweeping horizontal line extending to the right.

Pius J. Lacher
4185 E. Strawberry Dr.
Gilbert, Arizona 85298

Cc: Kyle Mieras, Director of Development Services
Ashley MacDonald, Senior Planner



ALTERNATIVE PLAN FOR SPORTS COURTS

MARCH 2020

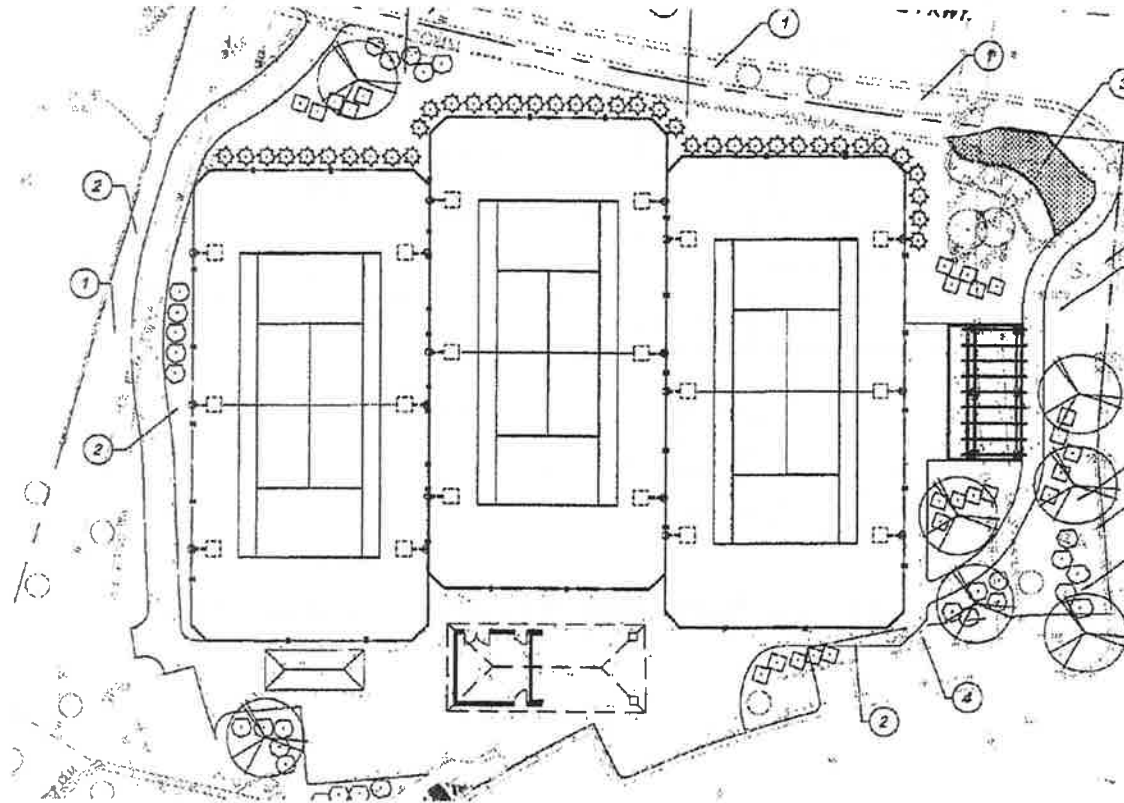
CONCEPT FOR DISCUSSION



MAJOR FEATURES OF CONCEPT PLAN

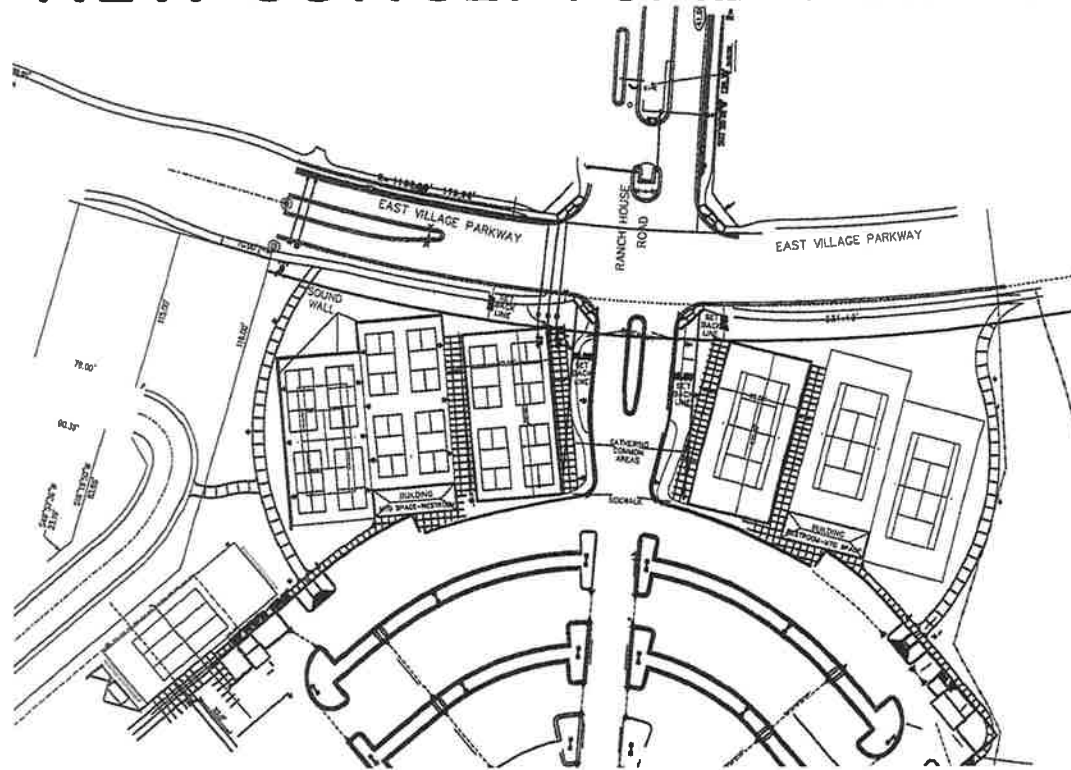
| | |
|---|--|
| REVERSES LOCATION OF PICKLEBALL AND TENNIS COURTS (LEFT RIGHT) | 8 FULL TIME PICKLEBALL COURTS PLUS 4 MORE ON THE SHARED COURT |
| REDUCES SOUND AFFECT ON HOMEOWNERS | 3 FULL TIME TENNIS COURTS PLUS 1 SHARED |
| ELIMINATES SETBACK VARIANCE REQUIREMENT AND APPROVAL OF THE TOWN OF GILBERT | PICKLEBALL COURTS ARE SAME SIZE AS ANTHEM, ROBSON RANCH, AND LEISURE WORLD |
| PICKLEBALL COURTS ALL TOGETHER NOT ACROSS DRIVEWAY | RESTROOMS AND DRINKING FOUNTAINS ON BOTH SIDES |
| STORAGE AND MEETING SPACE | MULTIPLE VIEWING AREAS WITH LANDSCAPING |
| POST TENSION OVERLAY – SAFE SURFACE | NEW COURTS APPROVED AND CONSTRUCTED FASTER |
| NEW LIGHTING - LED | COST SAVINGS |
| REMOVES OBJECTIONS FROM ADJACENT HOUSES | PB COURTS INDIVIDUAL FENCES |
| SOUND WALLS TO PROTECT HOMEOWNER FROM NOISE | |

CURRENT CA PLAN WEST SIDE



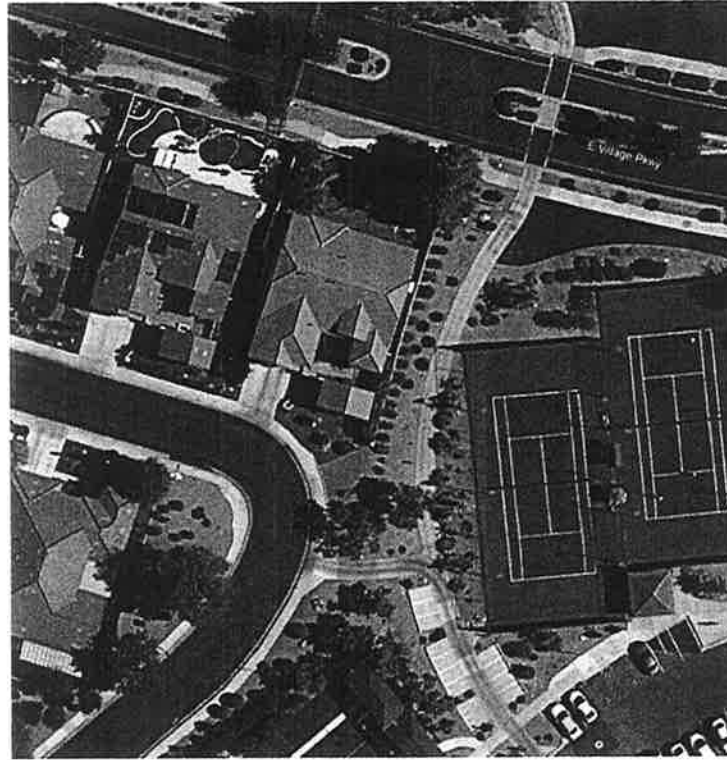
3 TENNIS COURTS PLUS SHARED COURT

NEW CONCEPTUAL LAYOUT



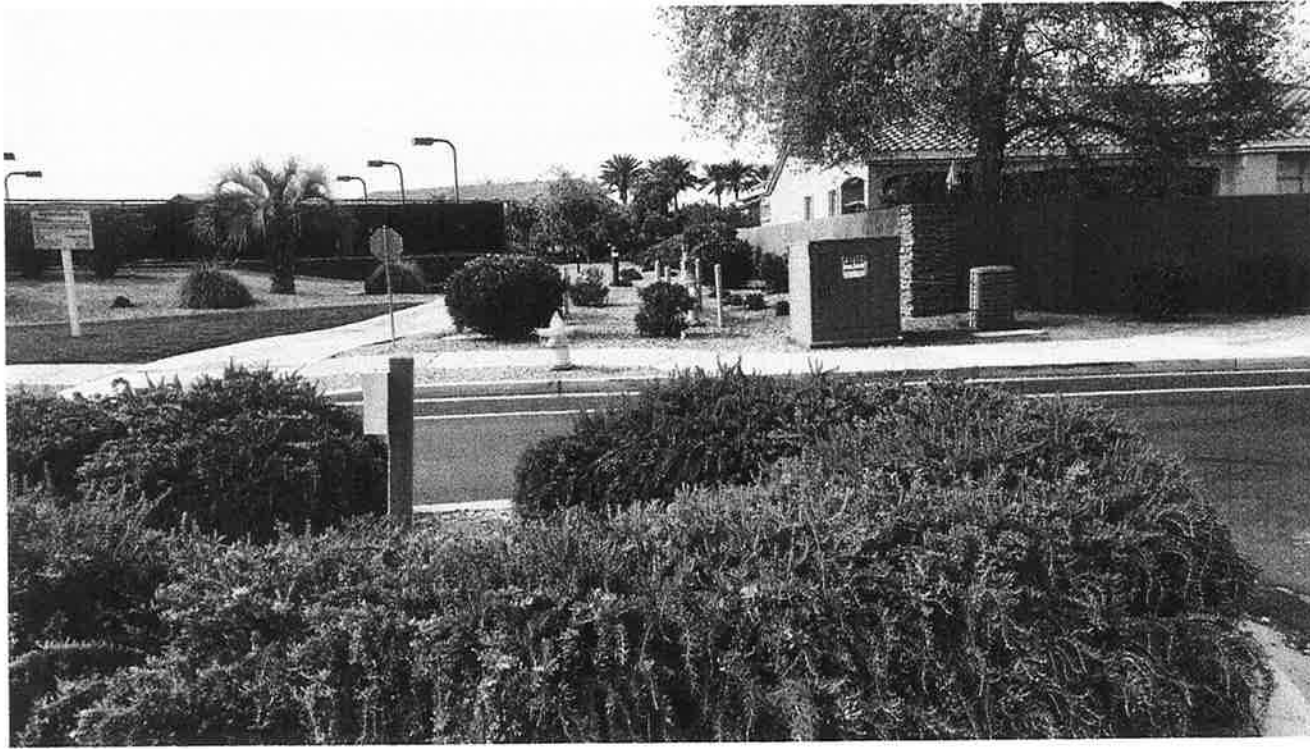
8 PICKLEBALL COURTS PLUS FLEX COURT ON WEST SIDE
3 TENNIS COURTS ON EAST SIDE
2 BUILDINGS, EACH WITH BATHROOMS, DRINKING FOUNTAINS,
STORAGE AND MEETING SPACES

HOMES NEAR THE PICKLEBALL COURTS



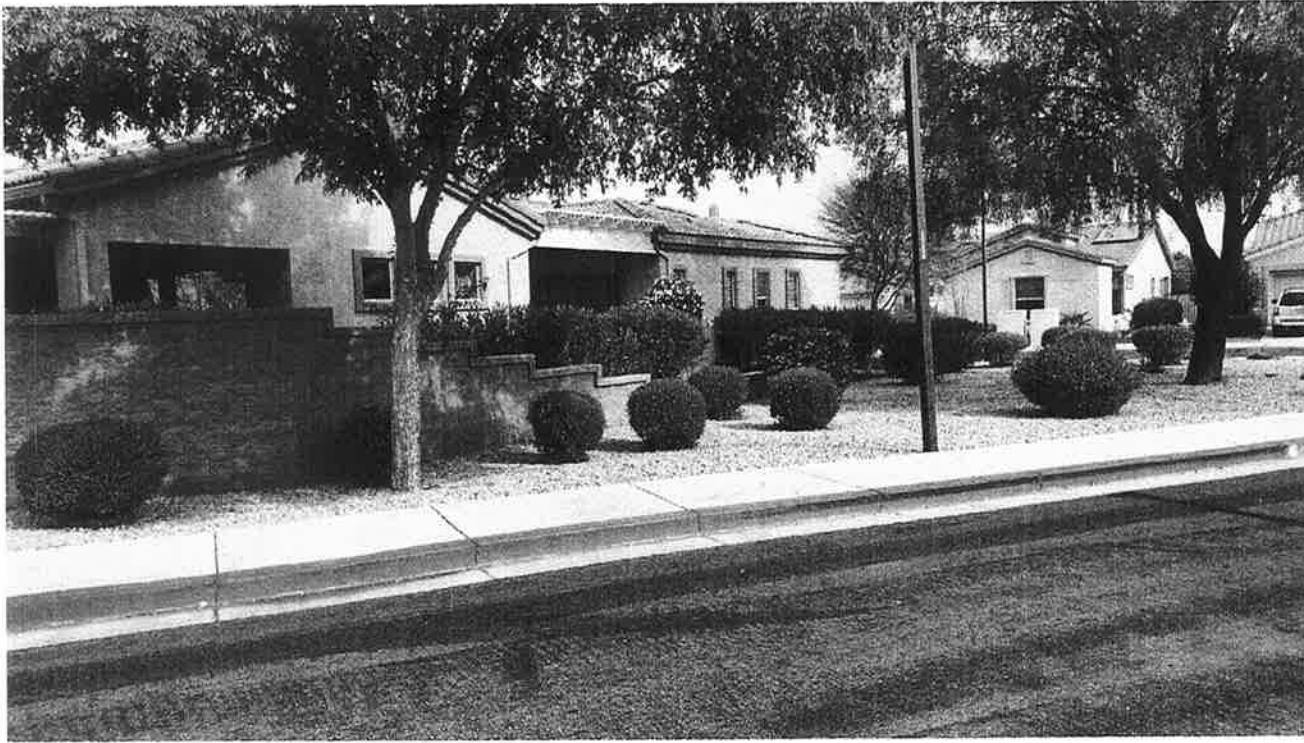
2 HOUSES HAVE EXISTING WALL AND PLANTINGS

HOUSE CLOSEST TO PICKLEBALL FLEX COURT



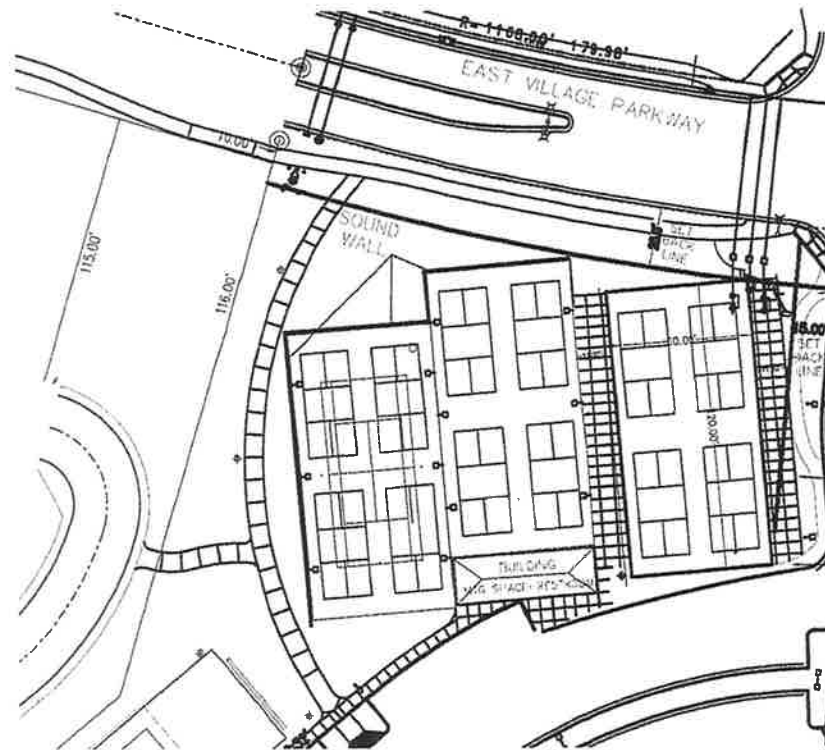
30' TO FLEX COURT AND 70' TO DEDICATED PICKLEBALL COURT
FROM ADJACENT HOUSE WITH EXISTING WALL AND PLANTINGS

OTHER HOUSE THAT MAY BE AFFECTED

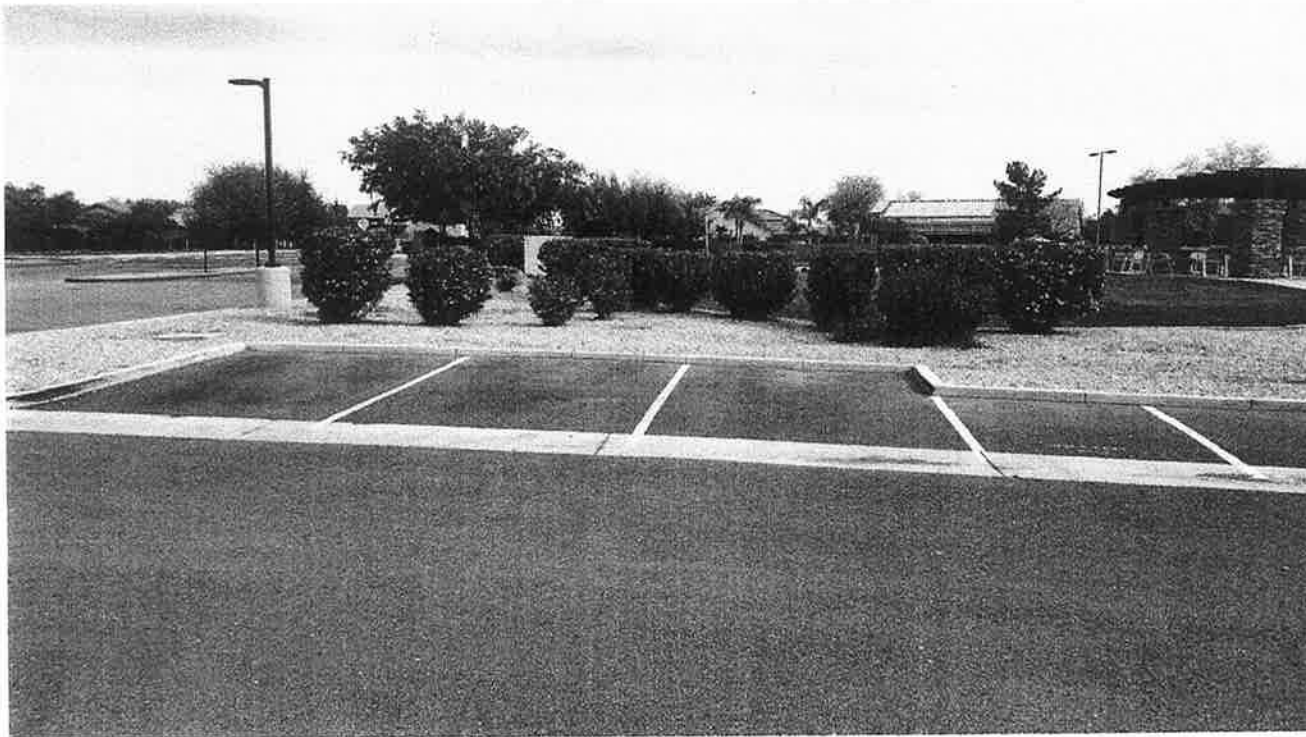


NEXT CLOSEST ADJACENT HOUSE WITH PLANTINGS NEAR SIDE PATIO

SOUND WALLS TO MITIGATE SOUND

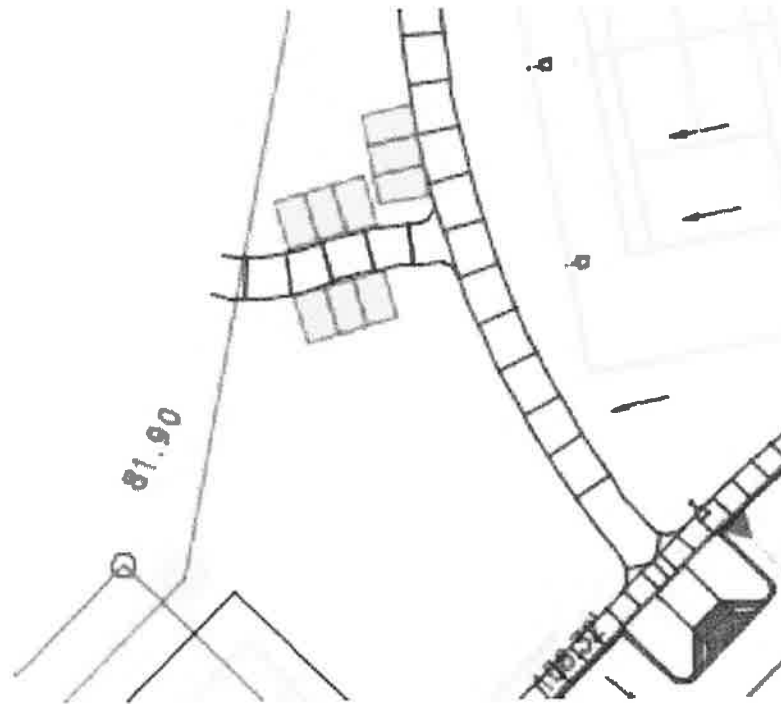


PARKING SPACES



3 CAR SPACES MAY BE LOST
SOME GOLF CART SPACES MAY BE LOST

GOLF CART PARKING SPACES



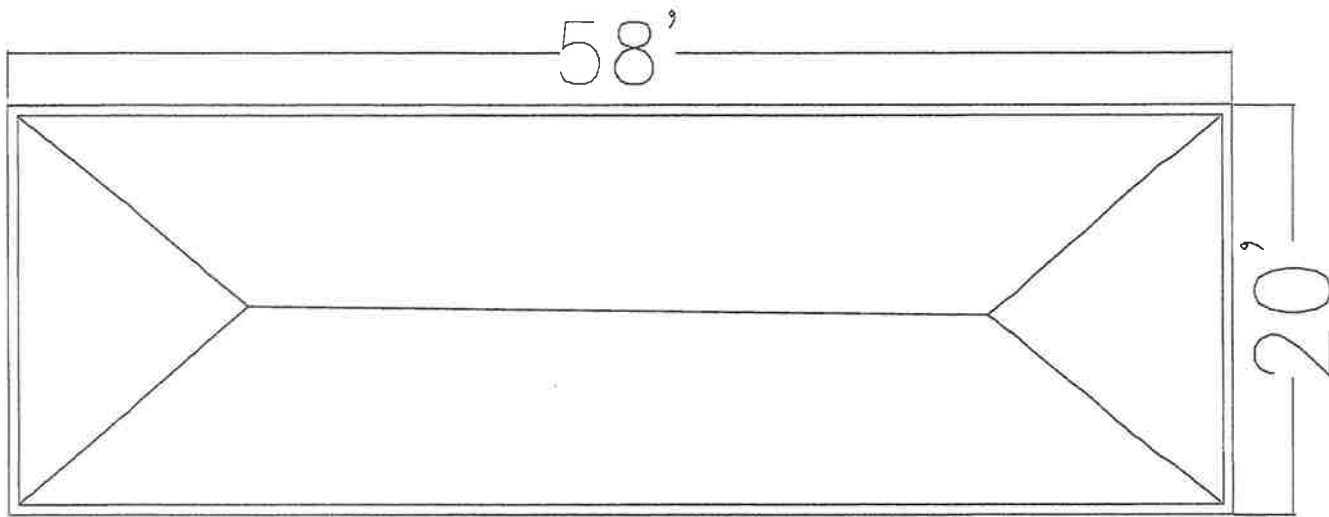
9 POTENTIAL GOLF CART SPACES TO REPLACE LOST SPACES

CAR PARKING SPACES



CAR SPACES REPLACEMENT FOR LOST ONES

BUILDINGS AT EACH COURT SET



EACH BUILDING (APPROXIMATELY 1,160 SF) WILL HAVE
BATHROOM, STORAGE, MEETING SPACE
AND DRINKING FOUNTAIN

CONCLUSIONS

- THIS PLAN NEEDS INPUT TO ADJUST TO THE NEEDS OF THE PICKLEBALL CLUB
- THIS PLAN NEEDS INPUT TO ADJUST TO THE NEEDS OF THE TENNIS CLUB
- THIS PLAN NEEDS TO BE PRESENTED TO THE COMMUNITY AS AN ALTERNATIVE (PLAN B) TO THE EXISTING PLAN
- KEY COMPONENTS:
 - SET BACK ISSUE IS MITIGATED
 - NOISE ISSUE IS MITIGATED
 - COMPLETION TIME MUCH SHORTER
 - SAFETY OF EXISTING COURT SURFACES MITIGATED
 - COSTS LOWER

From: Chuck & Patti Meyer < >
Sent: Friday, May 08, 2020 7:00 AM
To: Ashlee MacDonald;
Subject: Alternate Plan for Trilogy Sport Courts

Good Morning Ashlee,

I hope all is well with you and your family and we all can put this virus thing behind us and get on with our more normal lives!

I am writing you today to provide some more insight into the Sport Court debate that has been ongoing here in Trilogy. Back in December I sent registered letters and e-mails directed to Mayor Daniels and several members of the Gilbert Planning Department that included a concept for the Sport Court design that resolved the set back concerns that exist with the current plan submitted by Trilogy that is currently in review. Since my submittal I have had the opportunity to discuss my plan with many stakeholders in Trilogy and have found that a better solution was available than the one I submitted and I would like to replace my plan with the one that was recently submitted by Pius Lacher and Allan Converse who I am currently working closely with.

The design that our group submitted follows the same footprint of my original plan, but alters the court use by moving all Pickleball participants to the New Court and current courts to the West of Ranch House Road and the New Court and two existing courts on the East side would be for Tennis play. An eight foot sound abatement wall would be constructed to the North and West side of the recommended Pickleball courts per the recommendation of Lance Willis, PhD our Acoustical Consultant.

There are several advantages to the plan that Pius and our group submitted most importantly that the set back requirements are satisfied and the noise concerns of the Peachtree Road homeowners are no longer a problem. Obviously cost to Trilogy residents would be dramatically reduced and if this plan were to move forward there would be no need of future Town Hall meetings with Trilogy homeowners and the Town of Gilbert Planning Dept. to debate the flawed plan currently submitted by Trilogy.

Thanks Ashlee for this opportunity to share the merits of our plan and if you have any questions or concerns please contact me, Allan or Pius.

Chuck Meyer

From: Dan Morrissey < >
Sent: Tuesday, June 02, 2020 3:27 PM
To: Ashlee MacDonald
Subject: Sport courts Trilogy

Suggest the current plan has a very bad effect on the neighbors to East side. When I served on BOD we look at several plans and this current plan is **not good** for Trilogy
You have a real traffic concern and that intersection. I suggest you send it back and start over . It is important to listen to residents that live near the project.
Dan Morrissey 480

Sent from [Mail](#) for Windows 10

From: Eva Cutro
Sent: Monday, June 22, 2020 7:30 AM
To: Ashlee MacDonald
Subject: FW: Variance Case # Z20-03

FYI

-----Original Message-----

From: Cynthia Wilkinson < >
Sent: Sunday, June 21, 2020 2:29 PM
To: Catherine Lorbeer <Catherine.Lorbeer@gilbertaz.gov>
Subject: Re: Variance Case # Z20-03

> On Jun 21, 2020, at 12:57 PM, Cynthia Wilkinson < > wrote:
>
> To: So and so
>
> I am a Trilogy resident who lives near the Sports Courts and would like to address my concerns.
>
> First: I would like you to deny the Application for a Variance for a setback . (Case Z20-03, DR19-128.).
There is no need for it as we. Have two other Sports Court plans that will fit into the area without a
Variance. The present plan has never been voted on. A plan submitted in 2014 (not 2016) added two
courts with a cost of \$150,000. Was accepted by the residence. The new plan has many additional
courts, kitchen, bleachers, storage building, social area, and bathrooms at a minimum cost of \$750,000
and has not been voted on or approved by the residence.
>
> Two: Parking is limited and people are parking on Ranchhouse drive and Peachwood Drive and other
roads and in fire lanes. Emergence vehicles cannot get through when cars are parked on both sides.
People from the Sport Courts are crossing my property to get to their parked vehicles. This is happening
without tournaments being played. Will be a major problem when their are tournaments.
>
> Three: According to the acoustic expert, DL Lance Willis, who is well known nationally and written
books on the subject, the proper tests were never administered therefore the Acoustic Wall that Trilogy
is planning, will not work in this area. The noise is very disruptive for me and my neighbors who deserve
peace and quite with retirement. Shouting, screaming, partying, and the constant ping-pong of the
pickle balls hitting the paddle are extremely annoying. Acoustic. Measures need to be addressed.
>
> Four; A couple improved alternative plans should be submitted, but the management and the Board
have refused to meet with us since 2014 to discuss our plans. We are willing to compromise. We need a
plan that will work for everyone and that has been voted on by the residence. Right now many
residence are unhappy with the present plan and the cost.
>
> Please deny this Variance so we can move on to other and better plans.

Cynthia Wilkinson
5028 S. Peachwood Dr.

From: Eva Cutro
Sent: Monday, June 22, 2020 10:50 AM
To: Ashlee MacDonald
Subject: FW: Trilogy at Power Ranch Variance (Case220-03,DR19-128)

Second e-mail in opposition today. This one went to all council and commission

-----Original Message-----

From: Cynthia Wilkinson < >
Sent: Monday, June 22, 2020 10:41 AM
To: Jenn Daniels <Jenn.Daniels@gilbertaz.gov>; Scott.Andersen@gilbertaz.gov
Cc: Catherine Lorbeer <Catherine.Lorbeer@gilbertaz.gov>; Yung Koprowski <Yung.Koprowski@GilbertAZ.gov>; Scott September <Scott.September@GilbertAZ.gov>; Bill Spence <Bill.Spence@GilbertAZ.gov>; Jared Taylor <Jared.Taylor@gilbertaz.gov>; Aimee Yentes <Aimee.Yentes@GilbertAZ.gov>; Eva.Culro@gilbertaz.gov; Brian.Andersen@gilbertaz.gov; Carl.Bloomfield@gilbertaz.gov; David.Covenee@gilbertaz.gov; Noah.Mundt@gilbertaz.gov; Jan.Simon@gilbertaz.gov; Philip.Alebrandi@gilbertaz.gov; Nathan.Mackin@gilbertaz.gov
Subject: Trilogy at Power Ranch Variance (Case220-03,DR19-128)

From: Cynthia Wilkinson
Subject: Variance Z20-03
Date: June 20,2020
To: Town Council
Planning Commission Case:Z20-30, DR19-128

To: Gilbert Town Council and Planning Commission:

I am a Trilogy at Power Ranch resident who lives near the Sport Courts and would like to address my concerns.

I and my neighbors would like you to deny the Application for a Variance for a setback at the Sport Courts (Z20-30, DR19-128). There is no need for it as we have two other Sport Courts plans that will fit into the area without a Variance. The present plan has never been voted on by the residence. A Plan submitted in 2014, (NOT 2016), added two courts with a total cost of \$150,000 was accepted by the residence. This current Plan has many additional courts, kitchen, bleachers, storage building, social area, and bathrooms at a minimum of \$750,000. It has not been voted on or approved by the residence.

Parking is another issue. Parking, even without tournaments, has caused people to park in undesignated areas and fire lanes. With playing on all courts, parking will be, and has already been, overwhelming at most. We have seen parking on the Ranchhouse Parkway exit to Trilogy and side streets like mine. When they park on my street, emergency vehicles like fire trucks, etc. cannot get through. With tournaments this will be a major problem. Safety is being jeopardized. I also have had pickle ball people crossing my yard to get to their vehicles. Please consider the inadequate parking problem.

According to the acoustic expert, Dr. Lance Willis, who is well known nationally and written books on the subject, the proper tests were not administered. Therefore, the Acoustic Wall presently being planned will not work in this area. The noise is very disruptive to me and my neighbors who deserve peace and

quiet with retirement. Shouting, screaming, partying, and the constant ping-ping of the pickle ball hitting the paddle is extremely annoying. Acoustic measures need to be addressed.

At least two alternative Plans should be submitted but the Management and the Board have refused to meet with us to present and discuss these with them. We are willing to compromise. We need a Plan that will work for everyone and that has been approved and voted on by the residence. Right now many residence are unhappy with the present Plan and the unnecessary cost.

We need pickle ball and tennis at Trilogy, just not this Plan. Please deny this Plan and variance. Thank you for your time

Cynthia Wilkinson

From: Bob Hartley <
Sent: Thursday, June 25, 2020 11:53 AM
To: Ashlee MacDonald
Subject: Fw: Bittner (001253.1) Bittner, et al. / Trilogy Power Ranch re Community Meeting Issues
Attachments: 2-12-20 P. Overcash letter to J Daniels, TOG regarding Issues for Community Meeting.pdf

Hi Ashlee,
I left you a voicemail. Please include a copy of this Provident Law Document dated February 12, 2020 to the Planning Commission members. This was previously provided to the TOG. This letter documents earlier events and talks about an alternate plan for the Pickleball/Sport Courts, that was subsequently rejected by the Pickleball club. My understanding was that they did not want to walk across the Trilogy entrance way because the pickleball courts, under this previous alternate plan, would be on both sides of the sports complex.

Thanks,
Bob

From: Ann Washington <ann@providentlawyers.com>
Sent: Wednesday, February 12, 2020 2:55 PM
To: Bob Hartley <>; Scott Bittner <>
Cc: Philip A. Overcash <philip@providentlawyers.com>; Christopher Charles <Chris@providentlawyers.com>; Judi Partin <Judi@providentlawyers.com>; Ann Washington <ann@providentlawyers.com>; Silky Sharpe <silky@providentlawyers.com>
Subject: Bittner (001253.1) Bittner, et al. / Trilogy Power Ranch re Community Meeting Issues

Good afternoon Messrs. Bittner and Scott:

I hope this email finds your well. Attached for your records, please find recent correspondence in relation to the above mentioned matter.

Please contact Mr. Overcash with any questions or to discuss the matter further. Also, please contact me directly, if you encounter any issue with accessing the named attachment

Kind regards,



Ann Washington
Legal Assistant



PROVIDENT LAW®

14646 N. Kierland Blvd., Suite 230

Scottsdale, Arizona 85254

Phone: (480) 388-3343

Fax: (602) 753-1270

ann@providentlawyers.com

www.providentlawyers.com

This electronic mail message contains information from the law firm Provident Law, PLLC that may be confidential or privileged. Such information is solely for the intended recipient, and use by any other party is not authorized. If you are not the intended recipient, be aware that any review, disclosure, copying, distribution or use of this message, its contents, or any attachments is strictly prohibited. Any wrongful interception of this message is punishable as a Federal Crime. Although this message and any attachments are believed to be free of any virus or other defect that might affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that this message and any attachments are virus free. No responsibility is accepted by the sender for any loss or damage arising in any way from the use of this message or any attachments. If you have received this message in error, please notify the sender immediately by telephone (480-388-3343) or by electronic mail message to chris@providentlawyers.com, and destroy all copies of the original message. Unless otherwise indicated in the body of this message, nothing in this communication is intended to operate as an electronic signature under applicable law.

Tax Advice Disclosure: To ensure compliance with requirements imposed by the IRS under Circular 230, we inform you that any U.S. federal tax advice contained in this message (including any attachments), unless otherwise specifically stated, was not intended or written to be used, and cannot be used, for the purpose of (1) avoiding penalties under the Internal Revenue Code or (2) promoting, marketing or recommending to another party any matters addressed herein.



PROVIDENT LAW

PROVIDENT LAW®
14646 N. Kierland Blvd, Suite 230
Scottsdale, Arizona 85254
480-388-3343 (Office)
602-753-1270 (Fax)
www.providentlawyers.com

Philip A. Overcash
Attorney
philip@providentlawyers.com

February 12, 2020

Via First Class Mail and Email to:

Ms. Jenn Daniels, Mayor
Town of Gilbert
50 E. Civil Center Drive
Gilbert, AZ 85296
Jenn.daniels@gilbertaz.gov

Re: Concerned Homeowners of Trilogy at Power Ranch –
Objection to Construction of Pickleball Courts
Our File No. 001253.1

Dear Mayor Daniels:

I. INTRODUCTION

As you know, this Firm represents a group of concerned homeowners in the Trilogy at Power Ranch Community located in Gilbert, Arizona (the "Homeowners"), regarding their concerns about Trilogy at Power Ranch's ("Trilogy") anticipated construction of additional pickleball sport courts in the Trilogy community. As discussed in more detail in my correspondence dated May 24, 2019 and June 21, 2019 (which are incorporated herein by reference) and further below, Trilogy is attempting to convince the Town of Gilbert to approve their plans for the Pickleball Project which do not adequately address the Homeowners' concerns, and which would lead to violations of the Gilbert Code of Ordinances related to nuisances.

The Homeowners very much appreciate your and the Town of Gilbert's close attention to this serious issue. It is my understanding that the Town of Gilbert has recently rejected Trilogy's Pickleball Project proposal due to various zoning, setback and other concerns. In addition, the Pickleball Project as now proposed by Trilogy will create significant noise concerns if not adequately addressed.

The Homeowners want to reiterate and make clear that they are not opposed to the construction of pickleball courts at Trilogy. Their sole focus is to ensure that the best and most effective sound abatement techniques are incorporated into the plans to ensure that the nuisance level and resulting diminution in value of their properties is minimized to the greatest extent possible.

To that end, the Homeowners have engaged Dr. Lance Willis, Acoustical Engineer with Spendiarian & Willis Acoustics & Noise Control LLC in Tucson¹ to provide his expert opinion regarding the impulsive sound of the pickleball paddle impacts, as well to assess and propose a compromise plan which will allow the Pickleball Project to proceed, while at the same time alleviating the concerns of the Homeowners.

The Trilogy Board of Directors, on the other hand, have attempted to silence the Homeowners and their concerns. They engaged MD Acoustics to provide an assessment of the issues involved. In a report previously provided to the Town of Gilbert, Dr. Willis laid out in great detail the deficiencies and flawed science and logic contained in the MD Acoustics noise abatement plan. He summarized those findings as follows:

In summary, the noise abatement plan prepared by MD Acoustics has failed to:

- Correctly measure the impulsive sound of the pickleball paddle impacts
- Correctly identify and quantify the pickleball paddle impacts as the primary sound source during testing
- Correctly configure the sound level meter for such a measurement
- Use appropriate acoustical quantities for assessing short duration impulsive sounds
- Account for the pickleball paddle impacts in the acoustical model of the proposed site
- Apply a modern standard and current best practices for community noise assessment that accurately predict community response to impulsive sounds
- Inform their client of the true outcomes of building the pickleball courts as proposed, specifically continuing complaints from adjacent neighbors and an ongoing dispute over noise

¹ Dr. Willis is a nationally recognized expert in the particular sound nuisance problems created by pickleball play. He and his company have designed what are considered state of the art pickleball courts in several communities in Arizona, including Trilogy at Encanterra, Trilogy at Vistancia and Trilogy at Verde River.

- Accurately present to the neighboring homeowners and the Town of Gilbert the true noise impacts of the pickleball courts using modern standards and best practices
- Provide any shielding for homes on the north side of East Village Parkway that will be within 90 feet of the pickleball courts

See Letter from Dr. Willis dated June 11, 2019, Exhibit 1.

In response to Dr. Willis's concerns, MD Acoustics prepared a supplemental report dated July 9, 2019, which similarly failed to even measure the proper metrics or appropriately address the Homeowners' concerns. See July 9, 2019 MD Acoustics letter, Exhibit 2.

In his most recent report, Dr. Willis points out some of the flaws in their analysis:

In their July 2019 comments, MD Acoustics confirmed that they did not assess the impulsive sound of the paddles impacts.

MD was not hired to "measure the impulsive sound of pickleball paddle impacts," nor was MD hired to "predict community response to impulsive sounds." [Response to Comment 1]

See Letter from Dr. Willis dated February 6, 2020, Exhibit 3 at p. 1.

That glaring failure is significant. How can MD Acoustics address the "impulsive sound of pickleball paddle impacts" without even measuring it, or "predict community response to impulsive sounds" without considering it? And why would Trilogy hire them to perform an analysis without addressing that core concern?

MD Acoustics has also attempted to minimize any noise nuisance created by pickleball play by alleging that "the noise level is about the same as a ping pong table in the next room." Exhibit 1 at p. 2. The Homeowners and other Trilogy residents near the site of the proposed Pickleball Project should not be subjected to such a nuisance.

Furthermore, Trilogy has gone further than ignoring the nuisance created by impulsive sound of the paddles impacts and has actively prevented testing of the significant noise impacts of pickleball play, especially at larger gatherings of pickleball players. In fact, counsel for Trilogy threatened Dr. Willis with criminal trespass and physical removal from the premises if he performed testing of the noise impacts of the Trilogy Pickleball Charity Tournament held on October 26, 2019. See letter from Edward O'Brien, Esq. to Dr. Willis dated October 24, 2019, Exhibit 4.

As Dr. Willis further points out, Pickleball noise is a nuisance which has been debated and addressed by other communities throughout the country. See Exhibit 3 at pp. 3-4.



In his earlier report dated April 19, 2019, which was attached to the undersigned's May 24, 2019, letter, Dr. Willis advised that if appropriate noise abatement treatments are not used this "will lead to ongoing complaints, strained relations between neighbors and the pickleball facility, the need for continued involvement on the part of authorities, and additional retrofitting costs to improve the abatement later."

II. THE HOMEOWNERS, DR. WILLIS AND OTHER TRILOGY RESIDENTS APPROVE A COMPROMISE PLAN

But there is a solution to this significant problem. Dr. Willis has previously stated that "a satisfactory noise result can be achieved by placing the pickleball courts near the entrance driveway and farther from the homes."

Chuck Meyer, President of the Trilogy Tennis Club, has proposed such a Compromise Plan, which will satisfy the concerns of all parties. See email from Chuck Meyer to Mayor Daniels dated December 9, 2019, Exhibit 5.

Dr. Willis has reviewed that Compromise Plan, and has approved it based on a comparison to the Trilogy plan:

The Compromise Plan seeks to minimize the impact of the pickleball courts by increasing the buffer distance enough for a sound wall system to be able to lower the sound to an acceptable level. This plan places the loudest activity farthest from adjacent homes. The four tennis courts are placed on the outside of the sports center with eight dedicated pickleball courts at the innermost locations next to the entrance to the parking lot. A wall system is also included in the plan shielding the north, east, and west sides of the pickleball courts.

See Dr. Willis's "Trilogy at Power Ranch Pickleball Sound Assessment, Comparison of Proposed Site Plans," dated February 4, 2020, Exhibit 6.

III. THE TOWN OF GILBERT AND TRILOGY HAVE A DUTY TO PREVENT NUISANCES AND DIMINUTION IN PROPERTY VALUES.

The Town and Trilogy have a duty and obligation to prevent nuisances which can be avoided, especially when the solution is relatively simple and will not affect the overall intent of the project.

Article III Section 42-61 of Chapter 42 of the Gilbert Code of Ordinances declares that the Town's policy is:



Sec. 42-61. - Noise.

- (a) *Declaration of policy.* It is hereby declared to be the policy of the town to prohibit unnecessary, excessive and offensive noises from all sources subject to its police power. At certain levels, noises are detrimental to the health, safety and welfare of the citizenry, and in the public interest, such noise shall be systematically proscribed.

See Gilbert Code of Ordinances, ch. 42, art. III, § 42-61(a).

However, Section 42-61 is not the only applicable ordinance. Dr. Willis has previously discussed the Town's discretion under Section 42-64:

In light of the inconsistencies of the Gilbert Town Code Section 42-61 and its failure to provide any protections to residents for short duration impulsive noise, it is recommended to invoke Section 42-64. Under Section 42-64(b) item 14, the Town has the discretion to apply a more accurate and up to date standard to assess the noise impact of impulsive sounds. The noise assessment procedures for highly impulsive sounds in ANSI S12.9 Part 4, including a weekend adjustment since residents are usually home when the pickleball courts are in use, would be a good choice to get an accurate assessment of the noise impact of the proposed pickleball courts.

In addition, as we previously pointed out, the Town must consider the following factors in assessing the necessity of the noise that will result from the Pickleball Project: (1) the proximity of the noise to residential sleeping facilities; (2) the nature and zoning of the area within which the noise emanates; (3) the density of the inhabitation of the area within which the noise emanates; (4) whether the noise is recurrent, intermittent or constant; and (5) whether the noise is produced by a commercial or noncommercial activity (to name a few). See Gilbert Code of Ordinances, ch. 42, art. III, § 42-64(c).

Without a sound abatement plan in place by a qualified acoustical engineer like Dr. Willis, Trilogy will create, and the Town will bless, a public nuisance which will lead to a diminution in the value of the properties in close proximity to the Pickleball Project owned by the Homeowners and others. It will also diminish the quality of life of those affected.

The Homeowners' have discussed Trilogy's proposed Pickleball Project with several realtors knowledgeable about area. Those realtors believe that the value of the affected homes will decrease in value if the Homeowners' concerns are not addressed. Many Homeowners paid thousands of dollars in lot premiums for their property, now only to see the value of their property on the verge of being diminished. The Town and Trilogy are now on notice of these anticipated damages, and the Homeowners will look to the Town and Trilogy to make them whole for their losses in the event the Pickleball Project is approved by the Town and Trilogy proceeds with it as planned.

Ms. Jenn Daniels, Mayor
Town of Gilbert
February 12, 2020
Page 6

IV. CONCLUSION

To reiterate, the Homeowners do not wish to prevent the Pickleball Project from going forward. They understand the benefits of such amenities, especially in a 55+ community. The Homeowners urge the Town of Gilbert to reject Trilogy's plan and approve the Compromise Plan. Thank you in advance for considering and addressing the Homeowners' concerns. Please feel free to contact me directly if the Town wishes to further discuss these issues. Thank you.

Very truly yours,
PROVIDENT LAW®

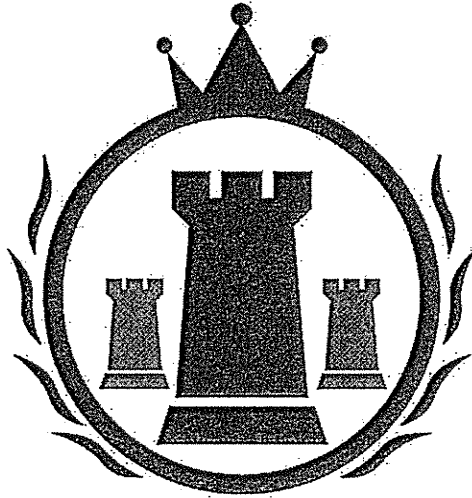


Philip A. Overcash
Attorney

PAO:jjp:aw

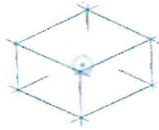
Enclosures:

Cc: Brigitte Peterson, Councilmember, Town of Gilbert (via email to: Brigitte.Peterson@GilbertAZ.gov)
Scott Anderson, Councilmember, Town of Gilbert (via email to: Scott.Anderson@GilbertAZ.gov)
Eddie Cook, Vice Mayor, Town of Gilbert (via email to: Eddie.Cook@GilbertAZ.gov)
Victor Petersen, Town of Gilbert (via email to: Victor.Petersen@GilbertAZ.gov)
Jordan Ray, Councilmember, Town of Gilbert (via email to: Jordan.Ray@GilbertAZ.gov)
Jared Taylor, Councilmember, Town of Gilbert (via email to: Jared.Taylor@GilbertAZ.gov)
Ashlee MacDonald, Town of Gilbert (via email to: Ashlee.MacDonald@GilbertAZ.gov)
Catherine Lorbeer, Town of Gilbert (via email to: Catherine.Lorbeer@GilbertAZ.gov)
Kyle Mieras, Town of Gilbert (via email to: Kyle.Mieras@gilbertaz.gov)



PROVIDENT LAW

Exhibit 1



Tuesday, June 11, 2019

Robert Hartley
4467 E. Sycamore Drive
Gilbert, AZ 85298

Dear Mr. Hartley,

This letter comments on the noise abatement plan prepared by MD Acoustics dated May 28, 2019 and the application of the Gilbert Town Code Section 42 to address the new pickleball courts planned for Trilogy at Power Ranch at E. Village Parkway and S. Meadowbrook Road.

The sound produced by the impact between a pickleball and paddle is characterized by a sudden onset and brief duration, typically on the order of two thousandths of a second for the direct path sound. The spectral content of the paddle impact is narrowband with a center frequency typically between 1,000 and 2,000 Hertz. Although it does not meet most guidelines for tonal prominence such Annex C of ANSI S12.9 Part 4 or ANSI S1.13, it does impart a vague sensation of pitch. The acoustic radiation pattern of the paddle is more or less a dipole or figure eight pattern, i.e. most of the sound from the front and back of the paddle is of opposite polarity and cancels itself in the plane of the paddle. Therefore, orienting the courts so that the direction of play is not aligned with noise sensitive areas can provide some attenuation.

The general guidelines and procedures for characterizing impulsive sound given in the Town of Gilbert Municipal Code Sec. 42-61(d) do not directly address the community noise impact of very short duration impulsive sounds such as pickleball paddle impacts. The Gilbert Town Code Section 42-61 has a number of issues with consistency and a lack of provisions for specific types of sound such as impulsive sounds. Section 42-61(e)(1) sets sound pressure level limits inside a closed residential structure at 55 dBA during the day and 45 dBA at night. These are extraordinarily high limits to allow inside a residential dwelling, exceeding US Department of Housing and Urban Development requirements for project funding by 10 dBA. They are, however, common sound pressure level limits set by many municipal codes for exterior sound pressure levels. In fact, in the next section, 42-61(e)(2), the code gives provisions to use these same limits at a property boundary. These conditions are not equivalent use cases and the criteria are not interchangeable. MD Acoustics did appropriately apply the limits at the property line according to (2) and not as an interior level not as stated in (1); however, the methodology they

Spendiarian & Willis Acoustics & Noise Control LLC

June 11, 2019

1 of 8

used to assess the impulsive sound produced by the impact of the pickleball and paddle is not based on current best practices as discussed below.

In the MD Acoustics report Mr. Pearson states, "MD conducted the sound level measurements in accordance to the FHWA [Federal Highway Administration] technical noise specifications." Applying a road noise test protocol written for a broadband continuous sound source to a short duration impulsive sound source such as pickleball paddle impacts is wholly inappropriate and will grossly underestimate the community noise impact of the impulsive sounds. The report states that "slow" exponential time weighting was used. It is permissible to use the slightly more sensible "fast" setting option as stated in the Gilbert code section 42-61(d); however, this is nowhere stated in the report. Noise input and output data for the acoustical site model is stated to be given in Appendix B, but this is not included in the copy of the report available.

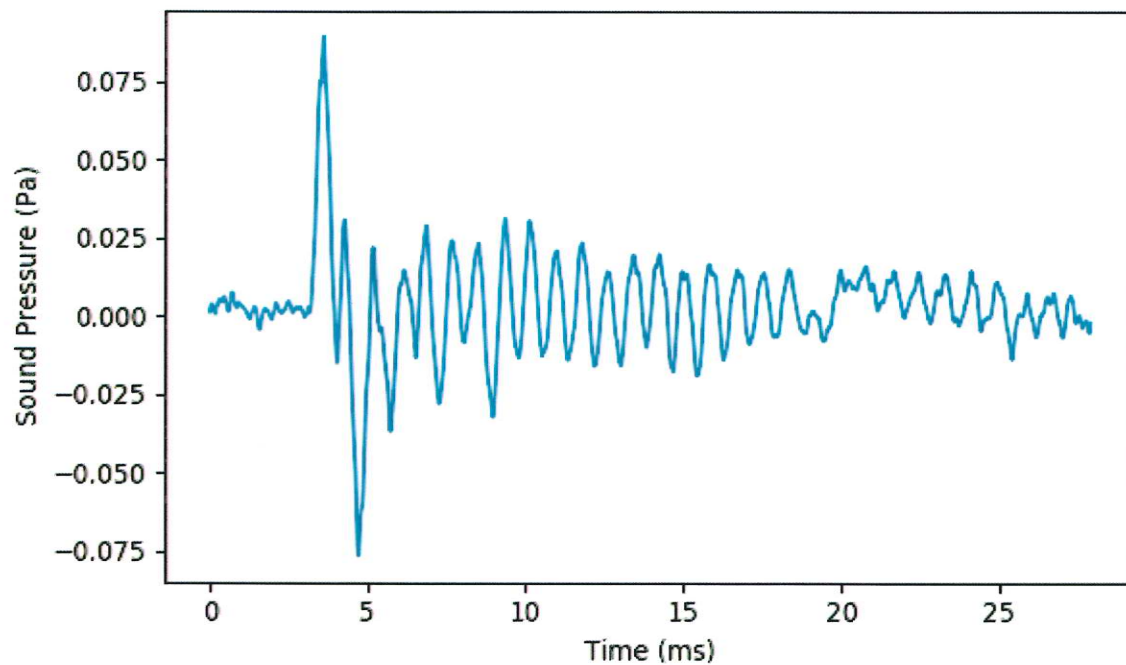


Figure 1. Sound Pressure Impulse Produced by Pickleball and Paddle Impact. Time is in milliseconds (0.001 seconds)

The time constant for slow exponential time weighting is 1.0 second. For fast exponential time weighting it is 0.125 seconds. From testing at pickleball sites performed by Spendiarian & Willis, it is known that the duration of the acoustical impulse produced by a paddle and ball impact is about two milliseconds or 0.002 seconds as shown in Figure 1, two orders of magnitude less than the time constant of the fast exponential time averaging filter. The impulse in Figure 1 was captured at a site in Prescott, Arizona. The actual distance from the pickleball paddle to the sound level meter was between 150 and 250 feet. The sound level meter was approximately 45 degrees off of the axis of play on the courts. The instantaneous peak sound pressure was 86.1 Pascal or 72.7 dB sound pressure level with no frequency weighting. Figure 2 shows that the paddle impact radiates acoustically as a narrowband peak that typically falls between 1,000 and 2,000 Hertz.

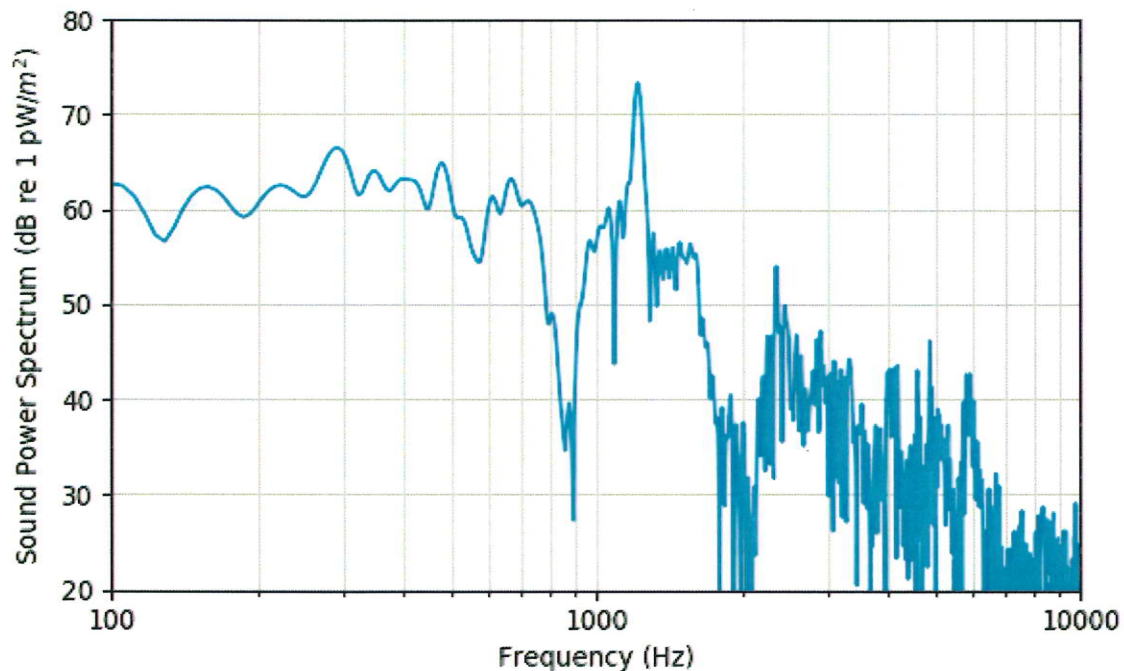


Figure 2. Frequencies Produced by a Pickleball and Paddle Impact (No frequency weighting applied)

Based on the contents of the MD Acoustics report and comments made at the May 29 meeting, Mr. Pearson does not appear to be aware of the paddle impulse duration or its importance in relation to the exponential time weighting used in the measurement of the L_{\max} parameter. Applying exponential time weighting to pickleball paddle impacts places the impulse outside the passband of the exponential time averaging filter and attenuates the L_{\max} sound pressure level reading of the impulsive sound by approximately 18 dB for the fast setting. Using the slow setting will result in an additional 18 dB of attenuation. These are very large measurement errors.

To further illustrate the response of a fast exponential time averaging filter to impulsive sound, Figure 3 demonstrates the filter response to a burst of sound just long enough to achieve an accurate reading within 0.5 dB of the true sound pressure level. The red curve represents the envelop of a burst of sound 0.277 seconds in duration. This is the time required for the output of the fast exponential time averaging filter (blue curve) to rise to within 0.5 dB of the actual sound pressure level of the sound burst. When the sound burst ends, the output of the exponential time averaging filter begins to decay. The peak value in the output of the fast exponential time averaging filter, after being converted to sound pressure level, is known as the L_{\max} level.

Figure 3 shows the behavior of the fast exponential time averaging filter and L_{\max} when used properly. Figure 4 illustrates how the fast exponential time averaging filter responds to a typical pickleball paddle impact. Note that the time scale has been greatly reduced for clarity. At the end of the 0.002 second impulse, the fast exponential time averaging filter has only had time to rise to a level that is 18 dB below the true sound pressure level of the impulse. The pickleball paddle impulse is so much shorter than the time constant of the averaging filter that the exponential curvature of the filter response is not even visible. It is clear that fast exponential time weighting, much less slow exponential time weighting, cannot be used to assess the noise impact of pickleball paddle impacts.

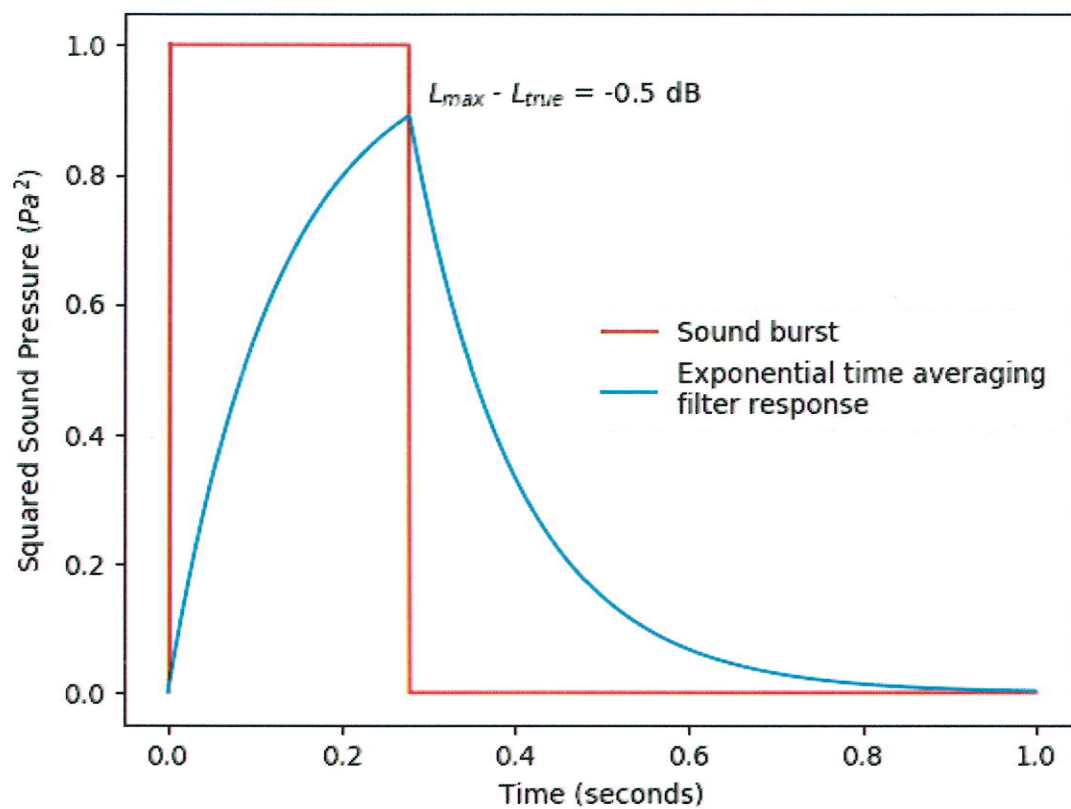


Figure 3. Fast Time Averaging Filter Response to a 0.277 Second Sound Burst

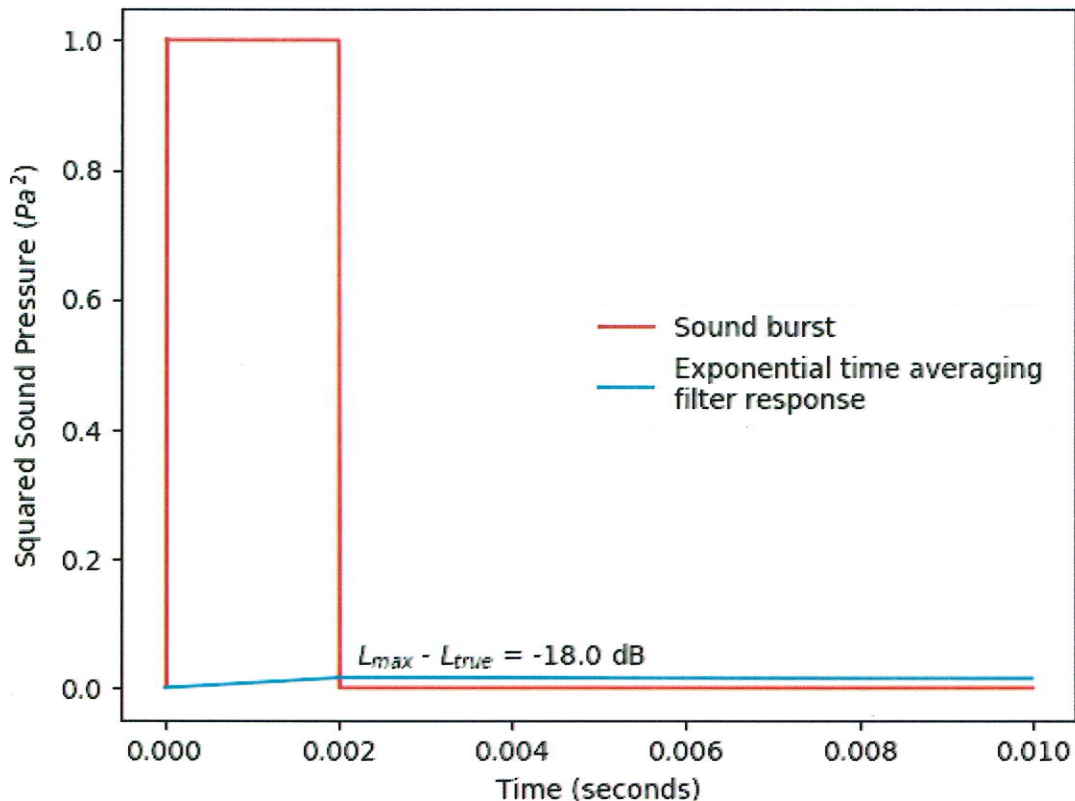


Figure 4. Fast Time Averaging Filter Response to a Typical Pickleball Paddle Impact

Section 5.0 of the MD Acoustics report states, "L_{max} represents the instantaneous sound of the ball hitting the paddle." This is factually incorrect. As seen in Figures 3 and 4, L_{max} is the output of an exponential time averaging filter, not an instantaneous sound pressure level. This underscores the importance of understanding how transient sounds are quantified, how sound level meters work, and the critical necessity of looking at one's data when working with impulsive sounds. L_{max} is normally, but not always, defined as the maximum *fast* exponential time weighted sound pressure level; however, "slow" is stated in the MD Acoustics report. In either case, L_{max} is the output of an exponential time weighting filter, i.e. an averaged level, and not an instantaneous peak sound pressure level which is much higher for impulsive sounds. With slow exponential time weighting the measurement error is about 36 dBA for pickleball paddle impacts.

In the meeting on May 29, Mr. Pearson was asked by a Power Ranch resident about the frequencies produced by the paddle impacts. Mr. Pearson said he had not looked at that and did not know. This is curious since the diffraction model for the sound wall he recommended would have required an input in the form of octave band or fractional octave band sound pressure data. If Mr. Pearson did not know the frequency band sound pressure levels of the paddle impacts then what did he use as the input to the sound wall attenuation model? Given that the report only describes equivalent-continuous (L_{eq}) and exponential time weighted (L_{max}) sound pressure levels that in all likelihood could not possibly indicate the contributions from the paddle impacts over the competing background noise due to either filter attenuation in the L_{max} values or spreading the impulsive energy over the entire measurement time as in the L_{eq} values, MD Acoustics has in no way demonstrated that they have characterized the sound of the paddle impacts. It appears instead that the acoustical model used by MD Acoustics to recommend noise abatement treatments for the proposed site was based on the speech noise generated by the pickleball players and not the paddle impacts. However, this cannot be confirmed either.

The point of this discussion is not to say that the analysis performed by MD Acoustics is in error by 18 or 36 dBA. The point is that MD Acoustics has not measured the paddle impacts at all. The incorrect sound level meter configuration used during testing filtered out the main sound source of interest, namely the pickleball paddles. The source of the sound pressure levels given in the report, including particularly the L_{max} readings, is unconfirmed by Mr. Pearson's own admission. If Mr. Pearson does not know the frequency content of the paddle impacts, the acoustical model for the abatement plan cannot have been based on the paddle impacts. It is also indicative that the report does not mention the spectrum of the paddle impacts and the words "impulse" and "impulsive" do not appear at all.

The results of the acoustical analysis will not be commented on since the inputs to those models were clearly flawed. Spendiarian & Willis has worked with numerous pickleball installations in Arizona and elsewhere over the last 10 years. In that time we have never seen pickleball courts located this close to single family homes that did not receive noise complaints. The recommended eight foot wall will not be sufficient to abate the impulsive sound from the courts, nor does the abatement plan provide for any shielding of homes to the north of the courts or the practice putting green to the southeast. Our experience does, however, lead us to believe that a satisfactory noise result can be achieved by placing the pickleball courts near the entrance driveway and farther from the homes. A noise abatement plan involving sound walls and lowering the pickleball courts into the ground would in all likelihood be feasible at this location.

In summary, the noise abatement plan prepared by MD Acoustics has failed to:

- Correctly measure the impulsive sound of the pickleball paddle impacts
- Correctly identify and quantify the pickleball paddle impacts as the primary sound source during testing
- Correctly configure the sound level meter for such a measurement
- Use appropriate acoustical quantities for assessing short duration impulsive sounds
- Account for the pickleball paddle impacts in the acoustical model of the proposed site
- Apply a modern standard and current best practices for community noise assessment that accurately predict community response to impulsive sounds
- Inform their client of the true outcomes of building the pickleball courts as proposed, specifically continuing complaints from adjacent neighbors and an ongoing dispute over noise
- Accurately present to the neighboring home owners and the Town of Gilbert the true noise impacts of the pickleball courts using modern standards and best practices
- Provide any shielding for homes on the north side of East Village Parkway that will be within 90 feet of the pickleball courts

In light of the inconsistencies of the Gilbert Town Code Section 42-61 and its failure to provide any protections to residents for short duration impulsive noise, it is recommended to invoke Section 42-64. Under Section 42-64(b) item 14, the Town has the discretion to apply a more accurate and up to date standard to assess the noise impact of impulsive sounds. The noise assessment procedures for highly impulsive sounds in ANSI S12.9 Part 4, including a weekend adjustment since residents are usually home when the pickleball courts are in use, would be a good choice to get an accurate assessment of the noise impact of the proposed pickleball courts.

regards,

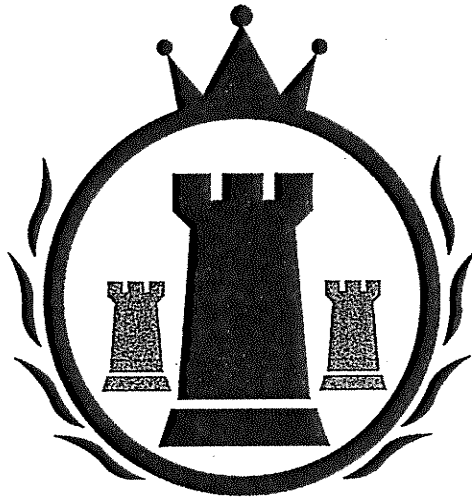
A handwritten signature in black ink, appearing to read "R. Lance Willis".

R. Lance Willis, PhD
Principle Acoustical Engineer

June 11, 2019

Spendiarian & Willis Acoustics & Noise Control LLC

8 of 8



PROVIDENT LAW

Exhibit 2

July 9, 2019

Mr. Ian Welsh
Trilogy at Power Ranch
4369 E Village Parkway
Gilbert, AZ 85298

**Subject: Trilogy at Power Ranch Pickleball Court – Noise Impact Assessment – Town of Gilbert, AZ
– Response to Comments #1**

Dear Mr. Welsh:

1.0 Introduction

MD Acoustics, LLC (MD) has been working with Trilogy at Power Ranch on the Pickleball Court project to provide a noise impact assessment and abatement recommendations. The study was prepared by MD on June 12, 2019. On June 21, 2019, MD received comments from Provident Law, including notes from Spendarian & Willis Acoustics & Noise Control, LLC (SW). MD has separated the letter into comments which is provided in Appendix A. MD's statement of qualifications is included in Appendix B.

In order to ensure that the best and most accurate information is provided to Trilogy and to the Town of Gilbert, MD has performed a thorough review of its initial report and provided an updated copy of the report. The findings corroborate the report dated June 12, 2019. The proposed pickleball courts do not violate the noise ordinance of the Town with or without the recommended mitigation measures. The proposed eight-foot-tall sound wall will further lessen any negative effects of the pickleball noise on adjacent residences.

MD has provided the following responses as it relates to the comments:

2.0 Comments and Responses

Comment 1

Page 2: In Summary, the noise abatement plan prepared by MD Acoustics has failed to: correctly measure the impulsive sound of the pickleball paddle impacts; correctly identify and quantify the pickleball paddle impacts as the primary sound source during testing; correctly configure the sound level meter for such a measurement; use appropriate acoustical quantities for assessing short duration impulsive sounds; account for the pickleball paddle impacts in the acoustical model of the proposed site; apply a modern standard and current best practices for community noise assessment that accurately predict community response to impulsive sounds; inform their client of the true outcomes of building the pickleball courts as proposed, specifically continuing complaints from adjacent neighbors and an ongoing dispute over noise; accurately present to the neighboring homeowners and the Town of Gilbert the true noise impacts of the pickleball courts using modern standards and best practices; provide any shielding for homes on the north side of East Village Parkway that will be within 90 feet of the pickleball courts.

Response to Comment 1

Measurements of the pickleball courts were taken according to the Gilbert town code, which does not require special treatment of impulsive noises. All of MD's presented recommendations and conclusions are accurate and thorough to provide the neighborhood and the Town of Gilbert the best information available.

SW uses the word 'correctly' as though there is only one true way to measure a given noise phenomenon. Different acoustic metrics are appropriate within different contexts. For any given sound source, there are several acoustical properties that could be measured – pressure, particle velocity, and intensity to name a few. There are not only different physical quantities that can be measured, but also different time scales associated with acoustical measurements. In the case of a noise compliance issue, the 'correct' way to measure noise is to follow the procedure given in the relevant noise ordinance. When no such procedure is given, there is room for discretion to determine best practice. MD followed the procedure provided in Section 42-61 of the municipal code of the Town of Gilbert.

The primary purpose of the sound study prepared by MD Acoustics was to determine compliance with the noise ordinance of the Town of Gilbert. Therefore, the measurement procedure prescribed by the municipal code was used by MD to prepare the report. Although other metrics may or may not be better suited to determining the specific acoustical characteristics of unique noise sources, such as pickleball paddles, those metrics are not relevant when it comes to determining whether a violation of the noise ordinance has occurred. MD was not hired to "measure the impulsive sound of pickleball paddle impacts," nor was MD hired to "predict community response to impulsive sounds." The purpose of the report was to determine whether the noise from a pickleball court would constitute a violation of the noise ordinance of the Town of Gilbert. Therefore, MD utilized the appropriate metric for the task at hand.

When it comes to the "true outcomes of building the pickleball courts as proposed," MD would like to point out that at less than 55 dBA L_{eq} within the nearest residences, the sound of "pickleball paddle impacts" is significantly less than normal human speech. In other words, the noise level is about the same as a ping pong table in the next room. While there are those who may find any increase in noise level unacceptable, those who choose to live in an active community should not be surprised to hear sounds of activity. MD provides cost-effective recommendations to minimize the noise impact of the pickleball courts at the nearest sensitive receptors while preserving the aesthetic as much as possible.

Comment 2

Exhibit 1, Page 1: The acoustic radiation pattern of the paddle is more or less a dipole or figure eight pattern, i.e. most of the sound from the front and back of the paddle is of opposite polarity and cancels itself in the plane of the paddle. Therefore, orienting the courts so that the direction of play is not aligned with noise sensitive areas can provide some attenuation.

Response to Comment 2

Dipole directivity would only apply at low frequencies and at the acoustical nearfield (e.g. short distances) from the pickleball paddles. To determine whether a measurement is in the nearfield or

farfield, multiply the acoustic wave number (k) by the distance between source and receiver (r). If the kr product is much greater than unity, then the measurement is considered in the farfield and drops off as a monopole ($1/r$) with uniform directivity. If kr is much less than unity, then the pressure amplitude falls off as a dipole ($1/r^2$) and exhibits a figure-eight directivity pattern. For a peak frequency of 1 kHz at a distance of 25 ft, kr is approximately 140, i.e. $kr \gg 1$. Therefore, radiation from the pickleball paddles, even if they exhibit dipole behavior in the near field, is best characterized as monopole radiation as MD indicated in their original report.

In the course of play, pickleball paddles are not necessarily aligned with the with the court orientation. While modeling an isolated paddle impact as a dipole is informational on a small scale, a more holistic, full-scale analysis of the situation would treat each court as a point source. This approach accounts for all possible orientations of pickleball paddles and all possible arrangements of players on the court. MD concluded that a reorientation of the pickleball courts would not provide a significant enough change in the sound field, especially in the farfield where receptors of interest are located, to warrant reorientation. For more information regarding dipole radiation, see David Blackstock's *Fundamentals of Physical Acoustics*.

Comment 3

Exhibit 1, Page 1: MD Acoustics did appropriately apply the limits at the property line according to (2) and not as an interior level not [sic] as stated in (1); however, the methodology used to assess the impulsive sound produced by the impact of the pickleball and paddle is not based on current best practices.

Response to Comment 3

SW is incorrect in the assumption of MD's measurement process and methodology. The Town's ordinance specifies a 15-minute average noise limit and not an impulse noise limit. It should be noted that MD has worked with other jurisdictions that have an impulse noise limit (e.g. City of Los Angeles). The town of Gilbert does not have an impulsive limit or penalty. From a noise compliance perspective, the impulsive nature of the sound source is irrelevant.

The Town's code is specific on the measurement equipment and methodology. Although SW's approach to measuring pickleball paddle impacts may provide useful information to characterize that specific noise, the Town of Gilbert has provided clear definition and explanation for the purpose of enforcement of the provisions of Section 42.

Sec. 42-61(d) states the following (emphasis added):

*Measurement criteria. For the purpose of enforcement of the provisions of this section, noise level shall be measured on the a-weighted scale with a sound level meter. The meter shall be set for slow response speed, **except that for impulse noises or rapidly varying sound levels, fast response speed may be used.** Prior to measurement, the meter shall be verified, and adjusted according to the manufacturer's specifications by means of an acoustical calibrator.*

The underlined section of the code specifically identifies that a fast response speed *“may”* be used. Therefore, per the Town’s code fast response setting is appropriate for measuring pickleball court noise. MD did measure both the slow and fast response noise, as MD’s equipment is capable of measuring both fast and slow response times simultaneously.

Although the L_{max} fast response was recorded, it does not change the Town’s noise limit of 55 dBA during the daytime and 45 dBA during the nighttime at the property line. The limit is a 15-minute sound level average which is the average noise level over time (L_{eq} value) and not an L_{max} level or a peak value as described by SW. Therefore, while SW’s recommended practices may capture the peak noise, they do not apply to the Town’s noise limit for comparative purposes.

Comment 4

Exhibit 1, Page 2: In the MD Acoustics report Mr. Pearson states, “MD conducted the sound level measurements in accordance to the FHWA [Federal Highway Administration] technical noise specifications.” Applying a road noise test protocol written for a broadband continuous sound source to a short duration impulsive sound source such as pickleball paddle impacts is wholly inappropriate and will grossly underestimate the community noise impact of the impulsive sounds.

Response to Comment 4

The FHWA protocol provides general guidance on sound level meter placement/methodology, including site selection, sampling period, and instrumentation. Furthermore, Response to Comment 3 identifies why MD reported the levels using A-weighted, slow settings. The Town’s ordinance specifies a 15-minute average noise limit and not an impulse noise limit. MD’s measurements were performed such that they recorded both slow and fast metrics associated with the baseline conditions at the project site. The impulse methodology as discussed by SW does not apply to the Town’s limit and is not a requirement for this noise study.

Comment 5

Exhibit 1, Page 2 – The report states that “slow” exponential time weighting was used. It is permissible to use the slightly more sensible “fast” setting option as state in the Gilbert code section 42-61(d); however, this is nowhere stated in the report.

Response to Comment 5

See response to Comment #3. As previously mentioned in Response to Comment #2:

Sec. 42-61(d) states:

For the purpose of enforcement of the provisions of this section, noise level shall be measured on the a-weighted scale with a sound level meter. The meter shall be set for slow response speed, except that for impulse noises or rapidly varying sound levels, fast response speed may be used. Prior to measurement, the meter shall be verified, and adjusted according to the manufacturer’s specifications by means of an acoustical calibrator.

Although the Gilbert code does not mandate a fast response speed to measure levels (operative word in the code is *may*), MD did use fast settings to measure the levels during active use of the pickleball courts.

Comment 6

Exhibit 1, Page 2: Noise input and output data for the acoustical site model is stated to be given in Appendix B, but this is not included in the copy of the report available.

Response to Comment 6

Appendix B is provided in the updated report.

Comment 7

Exhibit 1, Page 4: Based on the contents of the MD Acoustics report and comment made at the May 29 meeting, Mr. Pearson does not appear to be aware of the paddle impulse duration or its importance in relation to the exponential time weighting used in the measurement of the L_{\max} parameter.

Response to Comment 7

The duration of the paddle impulse does not change the municipal code of the Town of Gilbert. Response to Comment #3 gives the rationale regarding the noise measurements performed by MD.

Comment 8

Exhibit 1, Page 4: Applying exponential time weighting to pickleball paddle impacts places the impulse outside the passband of the exponential time averaging filter and attenuates the L_{\max} sound pressure level reading of the impulsive sound by approximately 18 dB for the fast setting. Using the slow setting will result in an additional 18 dB of attenuation. These are very large measurement errors.

Response to Comment 8

Response to Comment 3 describes the measurement procedure prescribed by the Town of Gilbert. The noise ordinance is based on the time-averaged measurement, not the peak pressure. The slow, A-weighted L_{eq} is specifically required by the noise ordinance. MD provided the A-weighted L_{\max} in addition to the average level.

Comment 9

Exhibit 1, Page 6: Section 5.0 of the MD Acoustics report states, " L_{\max} represents the instantaneous sound of the ball hitting the paddle." This is factually incorrect. As seen in Figures 3 and 4, L_{\max} is the output of an exponential time averaging filter, not an instantaneous sound pressure level. This underscores the importance of understanding how transient sounds are quantified, how sound level meters work, and the critical necessity of looking at one's data when working with impulsive sounds. L_{\max} is normally, but not always, defined as the maximum *fast* exponential time weighted sound pressure level; however, "slow" is stated in the MD Acoustics report. In either case, L_{\max} is the output of an exponential time weighting filter, i.e. an averaged level, and not an instantaneous peak sound pressure level which is much higher for impulsive sounds. With slow exponential time weighting the measurement error is about 36 dBA for pickleball paddle impacts.

Response to Comment 9

Response to Comment 3 corrects the assumptions made about MD's measurements and contains the procedure required by the Town of Gilbert. Either slow or fast responses may be used.

Comment 10

Exhibit 1, Page 7: In the meeting on May 29, Mr. Pearson was asked by a Power Ranch resident about the frequencies produced by the paddle impacts. Mr. Pearson said he had not looked at that and did not know. This is curious since the diffraction model for the sound wall he recommended would have required an input in the form of octave band or fractional octave band sound pressure data. If Mr. Pearson did not know the frequency band sound pressure levels of the paddle impacts then what did he use as the input to the sound wall attenuation model?

Response to Comment 10

Mr. Pearson's comment at the May 29th meeting was responding to information that was outside the scope of presenting the study, not information to which MD does not have access. Indeed, MD is aware of the frequency of the paddle impacts. MD updated the model to incorporate the spectrum as measured on site. Noise level input and output data is located in Appendix B of the updated report. This data was used to model the noise propagation with and without proposed attenuation solutions.

Comment 11

Exhibit 1, Page 7: Given that the report only describes equivalent-continuous (L_{eq}) and exponential time weighted (L_{max}) sound pressure levels that in all likelihood could not possibly indicate the contributions from the paddle impacts over the competing background noise due to either filter attenuation in the L_{max} values, MD Acoustics has in no way demonstrated that they have characterized the sound of the paddle impacts. It appears instead that the acoustical model used by MD Acoustics to recommend noise abatement treatments for the proposed site was based on the speech noise generated by the pickleball players and not the paddle impacts. However, this cannot be confirmed either.

Response to Comment 11

The Gilbert code calls for averaged sound levels, of which L_{eq} and L_{max} are two types. While SW may disagree on the Town's methodology for measuring pickleball court noise, the Town's ordinance is clear on the process to evaluate the sound. An enforcement officer [e.g. police department] does not have the time or ability to evaluate pickleball court noise using a peak metric.

Average sound levels account for the presence of a variety of noise sources, including paddles impacts, talking, shouting, cheering, squeaking shoes, and other noises. The purpose of such measurements is not to identify and diagnose the contribution of every element of the noise, but rather to gain a big-picture understanding of the sum of all noise sources on the community. The town code does not concern itself with individual contributions to noise so much as the overall effect of all noise received at receptor locations.

Comment 12

Exhibit 1, Page 7: The point of this discussion is not to say that the analysis performed by MD Acoustics is in error by 18 or 36 dBA. The point is that MD Acoustics has not measured paddle impacts at all. The

incorrect sound level meter configuration used during testing filtered out the main sound source of interest, namely the pickleball paddles. The source of the sound pressure levels given in the report, including particularly the L_{max} readings, is unconfirmed by Mr. Pearson's own admission. If Mr. Pearson does not know the frequency content of the paddle impacts, the acoustical model for the abatement plan cannot have been based on the paddle impacts. It is also indicative that the report does not mention the spectrum of the paddle impacts and the words "impulse" and "impulsive" do not appear at all.

Response to Comment 12

The purpose of the noise study was to evaluate the noise impact of the pickleball courts according to the Gilbert municipal code. Of necessity, the measurements taken during active use of the courts include the pickleball paddles as well as all other noise sources. Even if a single impact is attenuated in the signal processing, the nature of averaged levels is that over time they adjust to reflect the average noise level. Over the course of a one-minute measurement period, upwards of forty paddle impacts were included with the measurement, each contributing to the full picture of the situation.

The spectrum of an active pickleball court was used as the input for the SoundPLAN model and can be found in Appendix B. As stated before, Mr. Pearson's comment on not knowing the spectrum was not meant to imply that no spectrum was used to develop the model.

Comment 13

Exhibit 1, Page 7: The recommended eight foot wall will not be sufficient to abate the impulsive sound from the courts, nor does the abatement plan provide for any shielding of homes to the north of the courts or the practice putting green to the southeast.

Response to Comment 13

MD has experience with measuring and mitigating noise from numerous pickleball courts across the US. The SoundPLAN model validates the 8 foot wall design. The purpose of the sound study was not to eliminate complaints but to ensure the pickleball courts comply with the municipal code.

Comment 14

In light of the inconsistencies of the Gilbert Town Code Section 42-61 and its failure to provide any protections to residents for short duration impulsive noise, it is recommended to invoke Section 42-64. Under Section 42-64(b) item 14, the Town has the discretion to apply a more accurate and up to date standard to assess the noise impact of impulsive sounds. The noise assessment procedures for highly impulsive sounds in ANSI S12.9 Part 4, including a weekend adjustment since residents are usually home when the pickleball courts are in use, would be a good choice to get an accurate assessment of the noise impact of the proposed pickleball courts.

Response to Comment 14

Section 42-64(b) states the following:

Notwithstanding any other provision of this chapter, and in addition thereto, it shall be unlawful in residential areas for any person without justification to yell, shout, make unreasonably loud and disturbing noise, or allow any such noises to occur on one's property, between the hours of 9:00 p.m.

and 7:00 a.m., or at any time so as to disturb the quiet, comfort, or repose of a reasonable person of ordinary sensitivity. "Unreasonably loud and disturbing noise" means any noise of such character, intensity or duration as to be detrimental to the life or health or well-being of any individual in a residential area, or as to disturb the public peace and quiet of an individual in a residential area. This subsection applies only to those situations where the disturbance is not a result of the content of the communication, but due to the volume, duration, location, timing or other factors not based on content.

Per the Town's zoning map, the clubhouse is zoned public facilities/institutional (PF/I), which is adjacent to the single family residencies, which are zoned SF-6. The Town's noise ordinance establishes the noise limits between two differing zoning properties. Per MD's field visit and ambient measurements, the ambient sounds consisted of golf carts, driving ranges, the tee-off box, automobiles, aircraft flyovers, conversations, and pickleball paddles. These activities are pre-existing conditions prior to the proposed project. These types of sounds would be consistent with this type of use and would be allowed under the Town's zoning ordinance.

It should also be noted that "impulsive noise" usually refers to high amplitude impulses, such as jackhammers, gunshots, or engine backfires. The proposed project is consistent with the existing ambient condition. The plinking of a paddle hardly warrants such special consideration.

3.0 Conclusion

The noise is consistent with the type of land use and the noise levels are below the town's ordinance. The project will comply with the town's ordinance, and no further special analysis or mitigation is required.

MD is pleased to provide this response to comments (RTC#1). If you have any questions call our office at (805) 426-4477.

Sincerely,
MD Acoustics, LLC



Mike Dickerson, INCE
Principal



Samuel Hord, MS, INCE
Acoustical Consultant

Appendix A

Provident Law and SW Acoustics Letter
MD Acoustics/Redlined



PROVIDENT LAW

PROVIDENT LAW®
14646 N. Kierland Blvd, Suite 230
Scottsdale, Arizona 85254
480-388-3343 (Office)
602-753-1270 (Fax)
www.providentlawyers.com

Philip A. Overcash
Attorney
philip@providentlawyers.com

June 21, 2019

Via First Class Mail and Email to:

Ms. Jenn Daniels, Mayor
Town of Gilbert
50 E. Civil Center Drive
Gilbert, AZ 85296
Jenn.daniels@gilbertaz.gov

Re: Concerned Homeowners of Trilogy at Power Ranch
Re: Noise Abatement at Pickleball Courts
Our File No. 001253.1

Dear Mayor Daniels:

I. INTRODUCTION

As you know, this Firm represents a group of concerned homeowners in the Trilogy at Power Ranch Community located in Gilbert, Arizona (the "Homeowners"), regarding their concerns about Trilogy at Power Ranch's ("Trilogy") anticipated construction of additional pickleball sport courts in the Trilogy community. As discussed in more detail in my correspondence dated May 24, 2019 (which is incorporated herein by reference) and further below, Trilogy is proceeding with plans for the Pickleball Project which do not adequately address the Homeowners' concerns.

The Pickleball Project as now proposed by Trilogy will create significant noise concerns if not adequately addressed. The Homeowners want to emphasize and make clear that they are not opposed to the construction of pickleball courts at Trilogy. Their sole focus is to ensure that the best and most effective sound abatement techniques are incorporated into the plans to ensure that the nuisance level and resulting diminution in value of their properties is minimized to the greatest extent possible.

///

///

///

II. ARGUMENT

A. Acoustical Engineering Report Concerning Noise Abatement.

During a recent community meeting held on May 29, 2019, Trilogy's Board of Directors¹ presented the opinions of MD Acoustics, who purported to be experts in this area. Their opinions are flawed and should not be relied upon.

Attached is a supplemental report authored by Dr. Lance Willis, Acoustical Engineer with Spendiarian & Willis Acoustics & Noise Control LLC in Tucson. See Exhibit 1, Report from Dr. Lance Willis dated June 11, 2019. Dr. Willis is a nationally recognized expert in the particular sound nuisance problems created by pickleball play. See Exhibit 2, "Noise Abatement of Pickleball Courts" summary prepared by Dr. Willis. He and his company have designed what are considered state of the art pickleball courts in several communities in Arizona, including Trilogy at Encanterra, Trilogy at Vistancia and Trilogy at Verde River.

In his report, Dr. Willis lays out in great detail the deficiencies and flawed science and logic contained in the MD Acoustics noise abatement plan. He summarized those findings as follows:

Comment 1

In summary, the noise abatement plan prepared by MD Acoustics has failed to:

- Correctly measure the impulsive sound of the pickleball paddle impacts
- Correctly identify and quantify the pickleball paddle impacts as the primary sound source during testing
- Correctly configure the sound level meter for such a measurement
- Use appropriate acoustical quantities for assessing short duration impulsive sounds
- Account for the pickleball paddle impacts in the acoustical model of the proposed site
- Apply a modern standard and current best practices for community noise assessment that accurately predict community response to impulsive sounds

¹ The Trilogy Board of Directors inexplicably ejected the Homeowners' legal counsel from the meeting and threatened not to proceed with him in attendance.

- Inform their client of the true outcomes of building the pickleball courts as proposed, specifically continuing complaints from adjacent neighbors and an ongoing dispute over noise
- Accurately present to the neighboring homeowners and the Town of Gilbert the true noise impacts of the pickleball courts using modern standards and best practices
- Provide any shielding for homes on the north side of East Village Parkway that will be within 90 feet of the pickleball courts

See Exhibit 2 at p. 8.

In his earlier report dated April 19, 2019, which was attached to the undersigned's May 24, 2019, letter, Dr. Willis advised that if appropriate noise abatement treatments are not used this "will lead to ongoing complaints, strained relations between neighbors and the pickleball facility, the need for continued involvement on the part of authorities, and additional retrofitting costs to improve the abatement later." See May 24, 2019, letter from Philip A. Overcash, Esq. at Exhibit 4, p. 2. [Emphasis added.]

Dr. Willis further noted in that report that orienting the courts so that the direction of play is not aligned with noise sensitive areas may help reduce the resulting sounds, which begins with simply rearranging the location of the pickleball courts to be as far away as possible from the affected residences to the east of the recreation center, and nearest to the entrance driveway. Additionally, Dr. Willis suggests the placement of any bleachers (if any) for the project to run north and south on the east side of the pickleball courts, facing away from the nearest residences to the east, and also for the construction of sound walls at least eight feet in height. To accomplish the height standard, Dr. Willis suggests lowering the pickleball courts to reduce the amount of sound absorbing panels that will be required to absorb the sound reflected toward the homes to the west of the project site. Dr. Willis has advised that the above are preliminary suggestions, and the precise nature of the actual abatement treatments which will be required can only be a determined after a detailed site analysis.

In his recent report, Dr. Willis reiterated those recommendations: "Our experience does, however, lead us to believe that a satisfactory noise result can be achieved by placing the pickleball courts near the entrance driveway and farther from the homes. A noise abatement plan involving sound walls and lowering the pickleball courts into the ground would in all likelihood be feasible at this location." See Exhibit 2 at p. 7.

B. The Town of Gilbert and Trilogy Have a Duty to Prevent Nuisances and Diminution in Property Values.

The Town and Trilogy have a duty and obligation to prevent nuisances which can be avoided, especially when the solution is relatively simple and will not affect the overall intent of the project.

Article III Section 42-61 of Chapter 42 of the Gilbert Code of Ordinances declares that the Town's policy is:

Sec. 42-61. - Noise.

(a) *Declaration of policy.* It is hereby declared to be the policy of the town to prohibit unnecessary, excessive and offensive noises from all sources subject to its police power. At certain levels, noises are detrimental to the health, safety and welfare of the citizenry, and in the public interest, such noise shall be systematically proscribed.

See Gilbert Code of Ordinances, ch. 42, art. III, § 42-61(a).

However, Section 42-61 is not the only applicable ordinance. Dr. Willis also discussed the Town's discretion under Section 42-64:

In light of the inconsistencies of the Gilbert Town Code Section 42-61 and its failure to provide any protections to residents for short duration impulsive noise, it is recommended to invoke Section 42-64. Under Section 42-64(b) item 14, the Town has the discretion to apply a more accurate and up to date standard to assess the noise impact of impulsive sounds. The noise assessment procedures for highly impulsive sounds in ANSI S12.9 Part 4, including a weekend adjustment since residents are usually home when the pickleball courts are in use, would be a good choice to get an accurate assessment of the noise impact of the proposed pickleball courts.

See Exhibit 2 at p. 8.

In addition, as we previously pointed out, the Town must consider the following factors in assessing the necessity of the noise that will result from the Pickleball Project: (1) the proximity of the noise to residential sleeping facilities; (2) the nature and zoning of the area within which the noise emanates; (3) the density of the inhabitation of the area within which the noise emanates; (4) whether the noise is recurrent, intermittent or constant; and (5) whether the noise is produced by a commercial or noncommercial activity (to name a few). See Gilbert Code of Ordinances, ch. 42, art. III, § 42-64(c).

Without a sound abatement plan in place by a qualified acoustical engineer like Dr. Willis, Trilogy will create, and the Town will bless, a public nuisance which will lead to a diminution in the value of the properties in close proximity to the Pickleball Project owned by the Homeowners and others. It will also diminish the quality of life of those affected.

The Homeowners' have discussed Trilogy's proposed Pickleball Project with several realtors knowledgeable about area. Those realtors believe that the value of the affected homes will decrease in value if the Homeowners' concerns are not addressed. Many Homeowners paid thousands of dollars in



Ms. Jenn Daniels, Mayor
Town of Gilbert
June 21, 2019
Page 5

lot premiums for their property, now only to see the value of their property on the verge of being diminished. The Town and Trilogy are now on notice of these anticipated damages, and the Homeowners will look to the Town and Trilogy to make them whole for their losses in the event the Pickleball Project is approved by the Town and Trilogy proceeds with it as planned.

III. CONCLUSION

To reiterate, the Homeowners do not wish to prevent the Pickleball Project from going forward. They understand the benefits of such amenities, especially in a 55+ community. Their simple request is that the Town and Trilogy amend the plans in a manner as suggested and approved by Dr. Willis. His suggestions will not affect the overall project in a way that will diminish its usefulness, and will serve to protect the Homeowners and others from unnecessary nuisance and diminution of their property values.

Thank you in advance for considering and addressing the Homeowners' concerns. Please feel free to contact me directly if the Town wishes to further discuss these issues. Thank you.

Very truly yours,
PROVIDENT LAW®



Philip A. Overcash
Attorney

PAO:aw

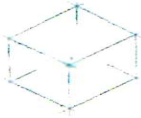
Enclosures: (1) Report from Dr. Lance Willis dated June 11, 2019
(2) "Noise Abatement of Pickleball Courts" summary prepared by Dr. Willis

cc: Brigette Peterson, Councilmember, Town of Gilbert (via email to: Brigette.Peterson@GilbertAZ.gov)
Scott Anderson, Councilmember, Town of Gilbert (via email to: Scott.Anderson@GilbertAZ.gov)
Eddie Cook, Vice Mayor, Town of Gilbert (via email to: Eddie.Cook@GilbertAZ.gov)
Victor Petersen, Town of Gilbert (via email to: Victor.Petersen@GilbertAZ.gov)
Jordan Ray, Councilmember, Town of Gilbert (via email to: Jordan.Ray@GilbertAZ.gov)
Jared Taylor, Councilmember, Town of Gilbert (via email to: Jared.Taylor@GilbertAZ.gov)
Ashlee MacDonald, Town of Gilbert (via email to: Ashlee.MacDonald@GilbertAZ.gov)
Catherine Lorbeer, Town of Gilbert (via email to: Catherine.Lorbeer@GilbertAZ.gov)
Kyle Mieras, Town of Gilbert (via email to: Kyle.Mieras@GilbertAZ.gov)
Edward O'Brien, Esq. (via email to: ed.obrien@carpenterhazlewood.com)



PROVIDENT LAW

Exhibit 1



Tuesday, June 11, 2019

Robert Hartley
4467 E. Sycamore Drive
Gilbert, AZ 85298

Dear Mr. Hartley,

This letter comments on the noise abatement plan prepared by MD Acoustics dated May 28, 2019 and the application of the Gilbert Town Code Section 42 to address the new pickleball courts planned for Trilogy at Power Ranch at E. Village Parkway and S. Meadowbrook Road.

The sound produced by the impact between a pickleball and paddle is characterized by a sudden onset and brief duration, typically on the order of two thousandths of a second for the direct path sound. The spectral content of the paddle impact is narrowband with a center frequency typically between 1,000 and 2,000 Hertz. Although it does not meet most guidelines for tonal prominence such Annex C of ANSI S12.9 Part 4 or ANSI S1.13, it does impart a vague sensation of pitch.

comment 2

The acoustic radiation pattern of the paddle is more or less a dipole or figure eight pattern, i.e. most of the sound from the front and back of the paddle is of opposite polarity and cancels itself in the plane of the paddle. Therefore, orienting the courts so that the direction of play is not aligned with noise sensitive areas can provide some attenuation.

The general guidelines and procedures for characterizing impulsive sound given in the Town of Gilbert Municipal Code Sec. 42-61(d) do not directly address the community noise impact of very short duration impulsive sounds such as pickleball paddle impacts. The Gilbert Town Code Section 42-61 has a number of issues with consistency and a lack of provisions for specific types of sound such as impulsive sounds. Section 42-61(e)(1) sets sound pressure level limits inside a closed residential structure at 55 dBA during the day and 45 dBA at night. These are extraordinarily high limits to allow inside a residential dwelling, exceeding US Department of Housing and Urban Development requirements for project funding by 10 dBA. They are, however, common sound pressure level limits set by many municipal codes for exterior sound pressure levels. In fact, in the next section, 42-61(e)(2), the code gives provisions to use these same limits at a property boundary. These conditions are not equivalent use cases and the criteria are not interchangeable. MD Acoustics did appropriately apply the limits at the property line according to (2) and not as an interior level not as stated in (1); however, the methodology they

Comment

Spendiarian & Willis Acoustics & Noise Control LLC

June 11, 2019

1 of 8

Comment 4

used to assess the impulsive sound produced by the impact of the pickleball and paddle is not based on current best practices as discussed below.

In the MD Acoustics report Mr. Pearson states, "MD conducted the sound level measurements in accordance to the FHWA [Federal Highway Administration] technical noise specifications." Applying a road noise test protocol written for a broadband continuous sound source to a short duration impulsive sound source such as pickleball paddle impacts is wholly inappropriate and will grossly underestimate the community noise impact of the impulsive sounds. The report states that "slow" exponential time weighting was used. It is permissible to use the slightly more sensible "fast" setting option as stated in the Gilbert code section 42-61(d); however, this is nowhere stated in the report. Noise input and output data for the acoustical site model is stated to be given in Appendix B, but this is not included in the copy of the report available.

Comment

Comment

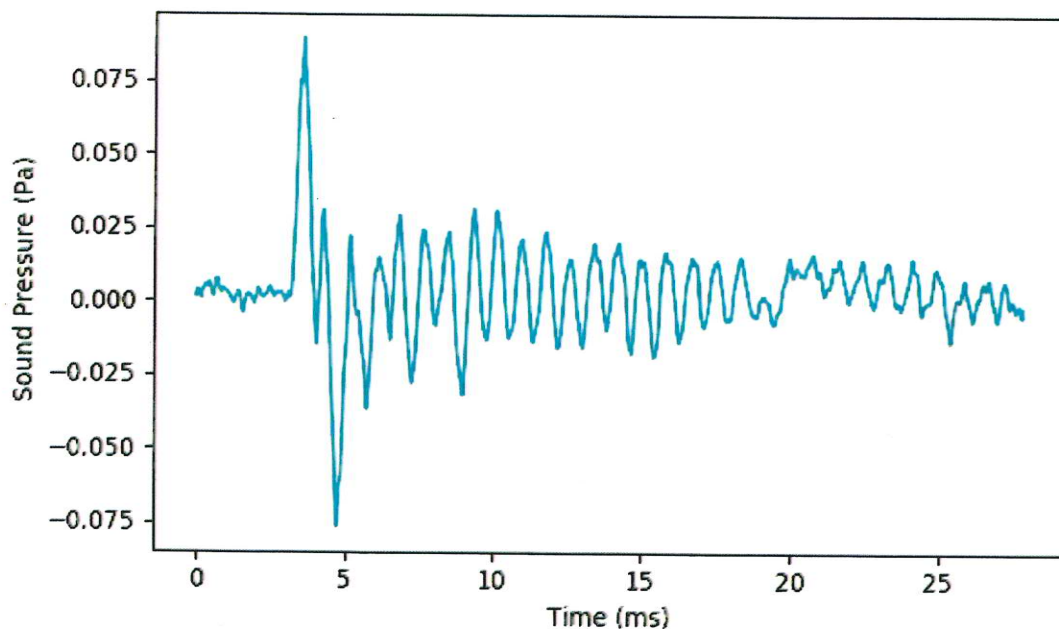


Figure 1. Sound Pressure Impulse Produced by Pickleball and Paddle Impact. Time is in milliseconds (0.001 seconds)

The time constant for slow exponential time weighting is 1.0 second. For fast exponential time weighting it is 0.125 seconds. From testing at pickleball sites performed by Spendiarian & Willis, it is known that the duration of the acoustical impulse produced by a paddle and ball impact is about two milliseconds or 0.002 seconds as shown in Figure 1, two orders of magnitude less than the time constant of the fast exponential time averaging filter. The impulse in Figure 1 was captured at a site in Prescott, Arizona. The actual distance from the pickleball paddle to the sound level meter was between 150 and 250 feet. The sound level meter was approximately 45 degrees off of the axis of play on the courts. The instantaneous peak sound pressure was 86.1 Pascal or 72.7 dB sound pressure level with no frequency weighting. Figure 2 shows that the paddle impact radiates acoustically as a narrowband peak that typically falls between 1,000 and 2,000 Hertz.

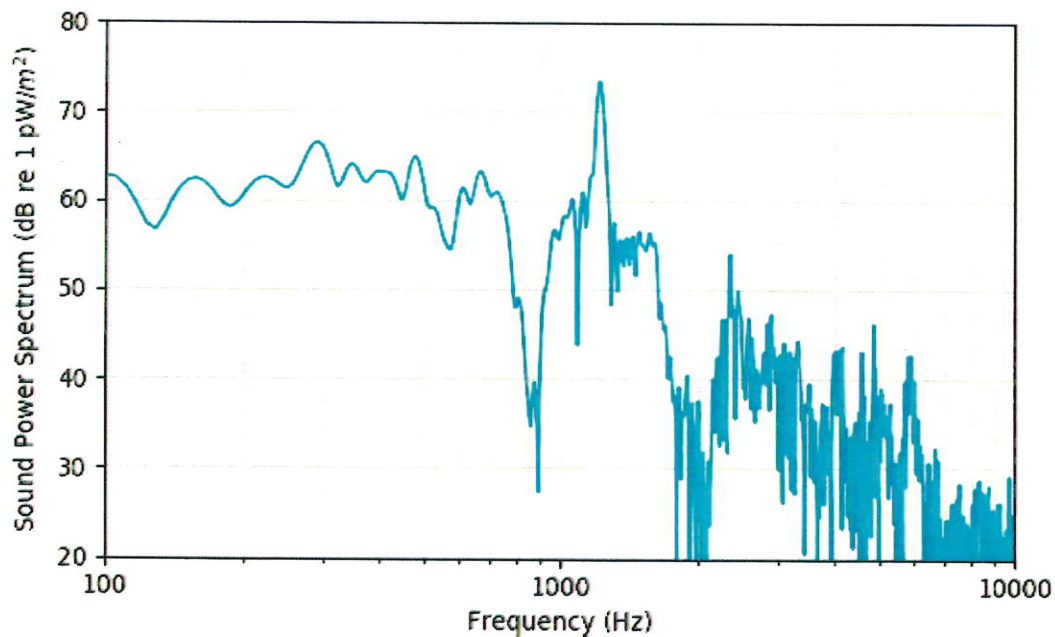


Figure 2. Frequencies Produced by a Pickleball and Paddle Impact (No frequency weighting applied)

Comment 7

Based on the contents of the MD Acoustics report and comments made at the May 29 meeting, Mr. Pearson does not appear to be aware of the paddle impulse duration or its importance in relation to the exponential time weighting used in the measurement of the L_{max} parameter.

Comment 8

Applying exponential time weighting to pickleball paddle impacts places the impulse outside the passband of the exponential time averaging filter and attenuates the L_{max} sound pressure level reading of the impulsive sound by approximately 18 dB for the fast setting. Using the slow setting will result in an additional 18 dB of attenuation. These are very large measurement errors.

To further illustrate the response of a fast exponential time averaging filter to impulsive sound, Figure 3 demonstrates the filter response to a burst of sound just long enough to achieve an accurate reading within 0.5 dB of the true sound pressure level. The red curve represents the envelop of a burst of sound 0.277 seconds in duration. This is the time required for the output of the fast exponential time averaging filter (blue curve) to rise to within 0.5 dB of the actual sound pressure level of the sound burst. When the sound burst ends, the output of the exponential time averaging filter begins to decay. The peak value in the output of the fast exponential time averaging filter, after being converted to sound pressure level, is known as the L_{max} level.

Figure 3 shows the behavior of the fast exponential time averaging filter and L_{max} when used properly. Figure 4 illustrates how the fast exponential time averaging filter responds to a typical pickleball paddle impact. Note that the time scale has been greatly reduced for clarity. At the end of the 0.002 second impulse, the fast exponential time averaging filter has only had time to rise to a level that is 18 dB below the true sound pressure level of the impulse. The pickleball paddle impulse is so much shorter than the time constant of the averaging filter that the exponential curvature of the filter response is not even visible. It is clear that fast exponential time weighting, much less slow exponential time weighting, cannot be used to assess the noise impact of pickleball paddle impacts.

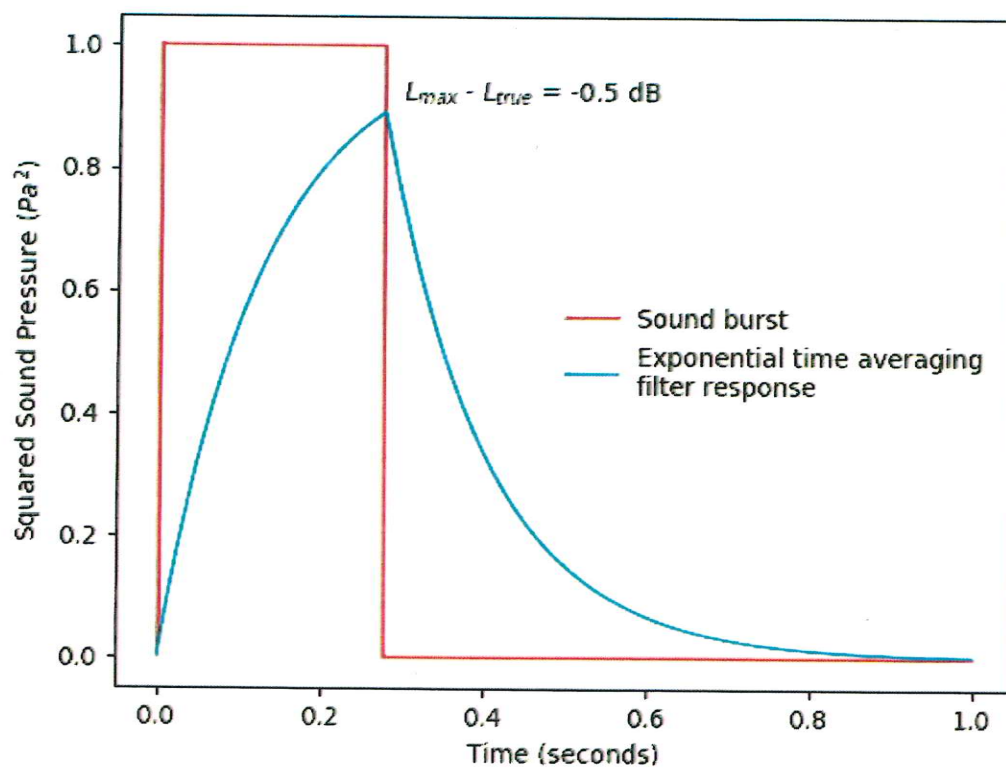


Figure 3. Fast Time Averaging Filter Response to a 0.277 Second Sound Burst

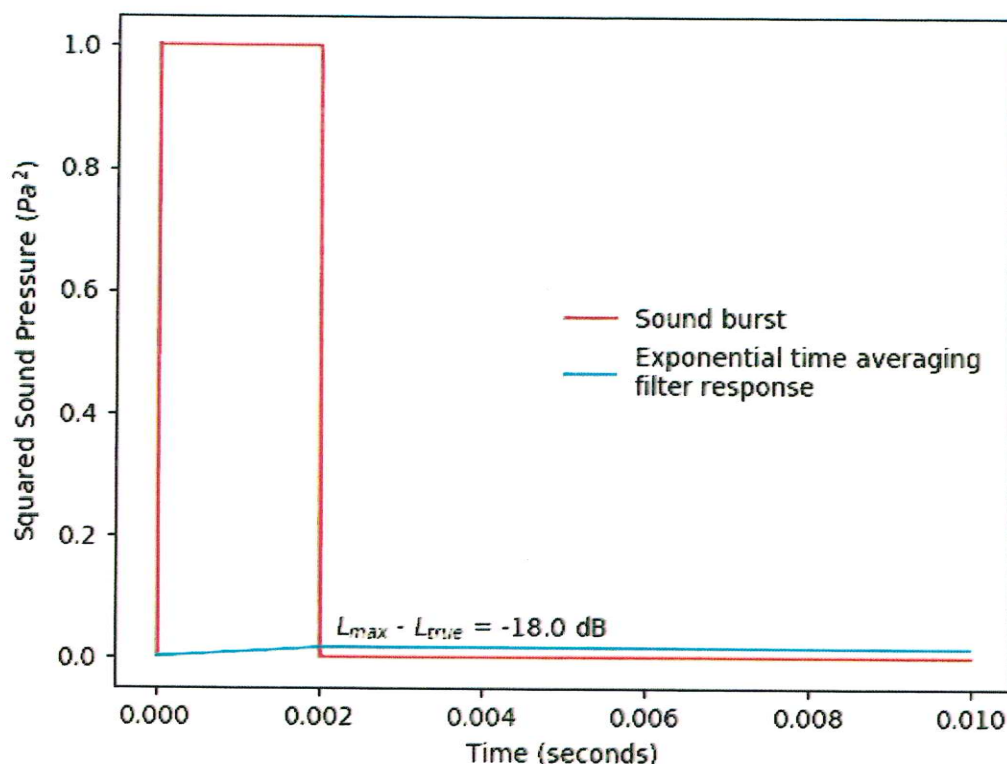


Figure 4. Fast Time Averaging Filter Response to a Typical Pickleball Paddle Impact

Comment 9

Section 5.0 of the MD Acoustics report states, "L_{max} represents the instantaneous sound of the ball hitting the paddle." This is factually incorrect. As seen in Figures 3 and 4, L_{max} is the output of an exponential time averaging filter, not an instantaneous sound pressure level. This underscores the importance of understanding how transient sounds are quantified, how sound level meters work, and the critical necessity of looking at one's data when working with impulsive sounds. L_{max} is normally, but not always, defined as the maximum *fast* exponential time weighted sound pressure level; however, "slow" is stated in the MD Acoustics report. In either case, L_{max} is the output of an exponential time weighting filter, i.e. an averaged level, and not an instantaneous peak sound pressure level which is much higher for impulsive sounds. With slow exponential time weighting the measurement error is about 36 dBA for pickleball paddle impacts.

Comment 10

In the meeting on May 29, Mr. Pearson was asked by a Power Ranch resident about the frequencies produced by the paddle impacts. Mr. Pearson said he had not looked at that and did not know. This is curious since the diffraction model for the sound wall he recommended would have required an input in the form of octave band or fractional octave band sound pressure data. If Mr. Pearson did not know the frequency band sound pressure levels of the paddle impacts then what did he use as the input to the sound wall attenuation model? Given that the report only describes equivalent-continuous (L_{eq}) and exponential time weighted (L_{max}) sound pressure levels that in all likelihood could not possibly indicate the contributions from the paddle impacts over the competing background noise due to either filter attenuation in the L_{max} values or spreading the impulsive energy over the entire measurement time as in the L_{eq} values, MD Acoustics has in no way demonstrated that they have characterized the sound of the paddle impacts. It appears instead that the acoustical model used by MD Acoustics to recommend noise abatement treatments for the proposed site was based on the speech noise generated by the pickleball players and not the paddle impacts. However, this cannot be confirmed either.

Comment 1

Comment 12

The point of this discussion is not to say that the analysis performed by MD Acoustics is in error by 18 or 36 dBA. The point is that MD Acoustics has not measured the paddle impacts at all. The incorrect sound level meter configuration used during testing filtered out the main sound source of interest, namely the pickleball paddles. The source of the sound pressure levels given in the report, including particularly the L_{max} readings, is unconfirmed by Mr. Pearson's own admission. If Mr. Pearson does not know the frequency content of the paddle impacts, the acoustical model for the abatement plan cannot have been based on the paddle impacts. It is also indicative that the report does not mention the spectrum of the paddle impacts and the words "impulse" and "impulsive" do not appear at all.

The results of the acoustical analysis will not be commented on since the inputs to those models were clearly flawed. Spendiarian & Willis has worked with numerous pickleball installations in Arizona and elsewhere over the last 10 years. In that time we have never seen pickleball courts located this close to single family homes that did not receive noise complaints. The recommended eight foot wall will not be sufficient to abate the impulsive sound from the courts, nor does the abatement plan provide for any shielding of homes to the north of the courts or the practice putting green to the southeast. Our experience does, however, lead us to believe that a satisfactory noise result can be achieved by placing the pickleball courts near the entrance driveway and farther from the homes. A noise abatement plan involving sound walls and lowering the pickleball courts into the ground would in all likelihood be feasible at this location.

Comment 13

In summary, the noise abatement plan prepared by MD Acoustics has failed to:

- Correctly measure the impulsive sound of the pickleball paddle impacts
- Correctly identify and quantify the pickleball paddle impacts as the primary sound source during testing
- Correctly configure the sound level meter for such a measurement
- Use appropriate acoustical quantities for assessing short duration impulsive sounds
- Account for the pickleball paddle impacts in the acoustical model of the proposed site
- Apply a modern standard and current best practices for community noise assessment that accurately predict community response to impulsive sounds
- Inform their client of the true outcomes of building the pickleball courts as proposed, specifically continuing complaints from adjacent neighbors and an ongoing dispute over noise
- Accurately present to the neighboring home owners and the Town of Gilbert the true noise impacts of the pickleball courts using modern standards and best practices
- Provide any shielding for homes on the north side of East Village Parkway that will be within 90 feet of the pickleball courts

Comment 14

In light of the inconsistencies of the Gilbert Town Code Section 42-61 and its failure to provide any protections to residents for short duration impulsive noise, it is recommended to invoke Section 42-64. Under Section 42-64(b) item 14, the Town has the discretion to apply a more accurate and up to date standard to assess the noise impact of impulsive sounds. The noise assessment procedures for highly impulsive sounds in ANSI S12.9 Part 4, including a weekend adjustment since residents are usually home when the pickleball courts are in use, would be a good choice to get an accurate assessment of the noise impact of the proposed pickleball courts.

regards,

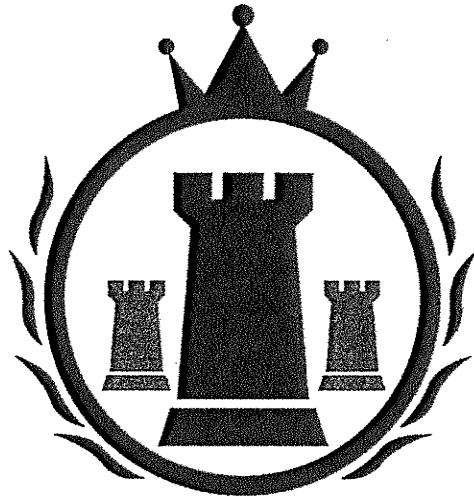


R. Lance Willis, PhD
Principle Acoustical Engineer

June 11, 2019

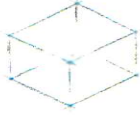
Spendiarian & Willis Acoustics & Noise Control LLC

8 of 8



PROVIDENT LAW

Exhibit 2



Noise Abatement of Pickleball Courts

Pickleball is very popular here in Arizona where we have planned and mitigated many sites around Tucson, Phoenix, and Prescott as well as sites outside Arizona. We have had the opportunity to work with pickleball clubs, site planners, and home owners associations. As a result, we are familiar with the goals and concerns of all the parties involved and have developed a systematic approach to evaluate the noise impact of pickleball courts and enable pickleball to coexist with the surrounding community.

While it may seem simple to measure pickleball courts and specify abatement treatments, the highly impulsive nature of the pickleball and paddle impacts require expertise in engineering acoustics, modern best practices for the measurement of impulsive sounds, and signal processing to accurately assess community noise impact. Due to the short duration of the impact, averaging sound pressure level metrics such as equivalent-continuous level (L_{eq}) and maximum fast exponential time weighted level (L_{max}) fail to accurately represent the perceived loudness of the impact and will cause less experienced acoustical consultants to come to the erroneous conclusion that the pickleball paddles have no greater noise impact than the background noise level.

Inadequate abatement treatment can lead to ongoing complaints, strained relations with neighbors, the need for continued involvement on the part of authorities, lawsuits, and retrofitting costs to improve the abatement later. It is far better to get the noise abatement for pickleball courts right the first time around by hiring an acoustical engineer with experience in the measurement and assessment of impulsive sound.

Pickleball Projects

ABREGO AT GREEN VALLEY, AZ

CANOA RANCH, GREEN VALLEY, AZ

DESERTVIEW AT SADDLEBROOKE ROBSON RESORT COMMUNITY, AZ

RIDGEVIEW AT SADDLEBROOKE ROBSON RESORT COMMUNITY, AZ
MOUNTAINVIEW AT SADDLEBROOKE ROBSON RESORT COMMUNITY, AZ
THE PRESERVE AT SADDLEBROOKE ROBSON RESORT COMMUNITY, AZ
ROBSON AT SUN LAKES / IRON OAKS, PHOENIX, AZ
ROBSON AT PEBBLE CREEK, PHOENIX, AZ
TRILOGY AT ENCANTERRA, PHOENIX, AZ
TRILOGY AT VERDE RIVER, PHOENIX, AZ
TRILOGY AT VISTANCIA, PHOENIX, AZ
SUNFLOWER DEVELOPMENT, TUCSON, AZ
YAVAPAI HILLS HOA, PRESCOTT, AZ
ELKHORN HOA, SUN VALLEY, ID
COLUMBINE COUNTRY CLUB, LITTLETON, CO
ST MICHAEL'S BY-THE-SEA CHURCH, CARLSBAD, CA

Expertise

Lance Willis, PhD

Principal Acoustical Engineer

Lance Willis holds a Bachelor of Mechanical Engineering (1993), Master of Science in Mechanical Engineering (1995), and a Ph.D. with a Multidisciplinary Certificate in Acoustics (1999) from the Georgia Institute of Technology. He has completed additional studies in sound quality, psychoacoustics, and experimental design from Pennsylvania State University.

In 2000, Dr. Willis began work in Motorola's Advanced Product Technology Center. Projects at Motorola included the acoustical design of portable radio products with respect to speaker and microphone performance, sound quality, and operation in wet and noisy environments; studies of rub and buzz detection methods; managing the development of a high efficiency family of speakers; and modal analysis of microspeaker cones to reduce audible distortion.

In 2005, he formed Perception Acoustics, an acoustical consulting firm in the areas of environmental acoustics, noise control, data acquisition systems, and acoustical instrumentation design.

Spendiarian & Willis Acoustics & Noise Control LLC

June 14, 2019

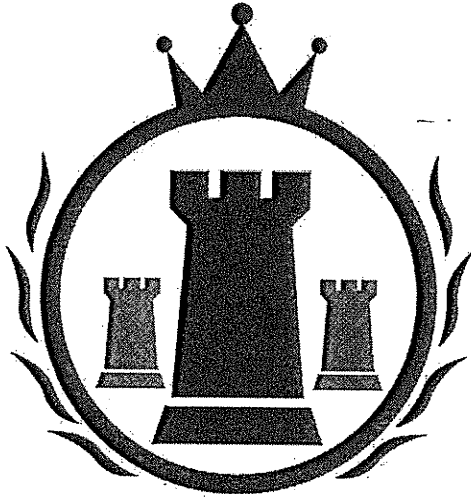
2 of 3

In 2009, a partnership was formed by Thomas Spendiarian RA and Lance Willis to create Spendiarian & Willis Acoustics & Noise Control LLC. The combination of acoustical engineering and building construction expertise enables Spendiarian & Willis to encompass the form and function of sound leveraging the acoustical properties of common building materials to achieve the same acoustical performance as dedicated acoustical materials at substantially reduced cost.

Dr. Willis is a member of the Acoustical Society of America and the Audio Engineering Society. He has been awarded three patents for adaptive equalization in behind the ear telephony devices and another for an audio porting assembly to prevent water intrusion into microphones.

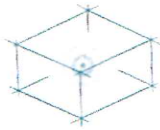
- Ph.D. M.E., Acoustics, Georgia Institute of Technology, Atlanta GA
- Member of the Acoustical Society of America and Audio Engineering Society
- Acoustical consulting in noise control and environmental and architectural acoustics since 2005
- 6 years in physical acoustics at the Advanced Product Technology Center at Motorola, Inc.
- 6 years experience in dynamic material characterization of microvoided viscoelastic polymers at the Georgia Institute of Technology for the Office of Naval Research
- Patents: “Audio porting assembly” to prevent water intrusion (7,668,332), “Adaptive equalizer for variable length sound tubes” (7,016,503; 6,698,290; and 6,651,501)

With Spendiarian & Willis you can be assured that your acoustical project will be managed by a trained and experienced acoustical engineer.



PROVIDENT LAW

Exhibit 3



Thursday, February 6, 2020

Robert Hartley
4467 E. Sycamore Drive
Gilbert, AZ 85298

Dear Mr. Hartley,

This letter is in response to comments by MD Acoustics dated July 9, 2019 [MD Acoustics, July 2019] in regard to a letter by Spendiarian & Willis dated June 11, 2019 included in a communication from Provident Law on June 21, 2019 [Overcash, 2019]. The June 11, 2019 letter was in response to a noise impact study and abatement plan for the proposed sports center improvements at Trilogy at Power Ranch prepared by MD Acoustics on May 28, 2019 [MD Acoustics, May 2019].

Addressing the Impulsive Sound of the Pickleball Courts

The conclusion of Spendiarian & Willis in the June 2019 letter was that the primary noise concern of the neighbors, the sound of the impacts between the hard plastic pickleballs and paddles, has not been addressed in the noise abatement plan for the proposed sport center improvements at Trilogy at Power Ranch [MD Acoustics, May 2019]. As explained in detail by Spendiarian & Willis in the June 2019 letter, the paddle impacts are impulsive sound having a short duration and high peak pressure. Characterization using metrics such as equivalent-continuous sound pressure level (L_{eq}) and maximum fast exponential time weighted sound pressure level (L_{max}) does not correlate well with the community response to this type of sound.

In their July 2019 comments, MD Acoustics confirmed that they did not assess the impulsive sound of the paddles impacts.

MD was not hired to “measure the impulsive sound of pickleball paddle impacts,” nor was MD hired to “predict community response to impulsive sounds.” [Response to Comment 1]

Spendiarian & Willis has urged Trilogy and the Town of Gilbert to use an appropriate noise impact assessment method for the impulsive sound of the paddle impacts in determining the placement of the pickleball courts and the amount of abatement needed to ensure that pickleball can take place at the sports center while maintaining an acceptable sound level for homeowners

living near the facility. Section 42-64 of the Gilbert Town Code gives provisions for evaluating sound with special characteristics such as impulsiveness. Section 42-64(a) states (emphasis added),

Notwithstanding any other provision of this chapter, and *in addition thereto*, it shall be unlawful for any person without justification to make or continue, or cause or permit to be made or continued, any unnecessary, excessive or offensive noise, which disturbs the peace or quiet of any neighborhood or which causes discomfort or *annoyance* to any reasonable person of normal sensitiveness residing in the area.

This section of the Code applies in addition to the sound pressure level limits in Section 42-61(e) for sounds with special characteristics and specifically refers to annoyance. The use of term, annoyance, can be traced back the work of Schultz and other researchers in the 1960s and 1970s [Schultz, 1978] and is the basis of federal standards for transportation noise assessment.

Section 42-64(b) of the Gilbert Town Code list factors that must be taken into consideration when evaluating the noise impact of a given sound source. These include, but are not limited to,

- Whether it is an impulse noise
- The duration of the noise
- Whether the noise is recurrent, intermittent or constant
- Whether the origin of the noise is natural or unnatural
- The proximity of the noise to residential sleeping facilities
- The density of the inhabitation of the area within which the noise emanates
- The time of the day or night the noise occurs

To date Section 42-64 of the Code has not been applied to the sports center. While MD Acoustics has attempted to utilize the letter of the law in Section 42-61, they have ignored the provisions of Section 42-64 in regard to the annoyance created by impulsive sound produced by the paddle impacts.

Comparison of Pickleball to Other Activities

MD Acoustics addresses the compatibility of pickleball with the type of facility and zoning.

Per MD's field visit and ambient measurements, the ambient sounds consisted of golf carts, driving ranges, the tee-off box, automobiles, aircraft flyovers, conversations, and pickleball paddles. These activities are pre-existing conditions prior to the proposed project. These types of sounds would be consistent with this type of use and would be allowed under the Town's zoning ordinance. [MD Acoustics, July 2019, Response to Comment 14]

Spendiarian & Willis does not dispute that pickleball is consistent with this type of land use provided an adequate noise abatement plan accounting for the paddle impacts is put in place; however, the pre-existing conditions, that is, the existing pickleball courts on the two east tennis courts, have been receiving complaints from neighbors for years. There is a common misconception that pickleball is acoustically equivalent to tennis, volleyball, or many of the other activities typically found at outdoor recreation centers and parks. Numerous news articles covering disputes over pickleball noise, many of which originate when existing tennis courts are converted to pickleball, demonstrate that this is not true:

- Adler, Erin, "Apple Valley neighbors in a pickle over pickleball noise." Star Tribune, Minneapolis, Minnesota. March 27, 2019. <<http://www.startribune.com/apple-valley-neighbors-in-a-pickle-over-pickleball-noise/507726242/>>
- Maryniak, Paul, "Pickleball lights plan puts two HOAs at loggerheads." Ahwatukee Foothills News, Tempe, Arizona. November 29, 2017. <https://www.ahwatukee.com/news/article_9056a946-d48e-11e7-9838-8b69fb2d50b2.html>
- Bottemiller, Kitty, "Too loud! Pickleball noise upsets neighbors." Green Valley News, Green Valley, Arizona. August 28, 2013. <https://www.gvnews.com/news/local/too-loud-pickleball-noise-upsets-neighbors/article_542c2aac-0f91-11e3-acdc-0019bb2963f4.html>
- Clay, Joanna, "Woman sues Newport Beach over pickleball noise at park near her home." Orange County Register, California. April 7, 2016. <<https://www.ocregister.com/2016/04/07/woman-sues-newport-beach-over-pickleball-noise-at-park-near-her-home/>>
- Shanes, Alexis, "Village in a pickle: How Ridgewood plans to tone down the pickleball court noise." northjersey.com, California. January 16, 2020. <<https://www.northjersey.com/story/news/bergen/ridgewood/2020/01/16/ridgewood-nj-pickleball-noise-reduction-measures/4480463002/>>

- Monterey Herald Staff, “Pickleball noise controversy goes before city leaders Pacific Grove neighbors object to game at nearby tennis courts.” The Mercury News, California. September 19, 2019. <<https://www.mercurynews.com/2019/09/19/pickleball-noise-controversy-goes-before-city-leaders/>>
- Fraser, Patrick and Rodriguez, Ambar, “What to do about constant pickleball noise?” WSVN 7 News Miami, Miami, Florida. March 27, 2019. <<https://wsvn.com/news/help-me-howard/what-to-do-about-constant-pickleball-noise/>>
- Sutphin, Daniel, “Nixing the noise: Sound fence construction underway at Gilchrist pickleball courts.” Port Charlotte Sun, Charlotte Harbor, Florida. May 20, 2019. <https://www.yoursun.com/charlotte/news/nixing-the-noise-sound-fence-construction-underway-at-gilchrist-pickleball/article_79a764de-7b1c-11e9-b4d4-6bcaa919f3f3.html>

It should be clear from the above list of references that pickleball constitutes a significant change in the acoustic environment of the area surrounding the courts in comparison to other activities normally found at recreation facilities and must be planned for accordingly.

MD Acoustics continues their comments,

It should also be noted that “impulsive noise” usually refers to high amplitude impulses, such as jackhammers, gunshots, or engine backfires. The proposed project is consistent with the existing ambient condition. The plinking of a paddle hardly warrants such special consideration. [MD Acoustics, July 2019, Response to Comment 14]

The implication here is that if the pickleball courts do not produce sound power equivalent to a firing range they cannot have a noise impact on the community. This is a fallacious argument that ignores the effect of distance from the sound source. The critical factor in assessing the impact of a sound source is its sound pressure level at the receiving properties. The sound pressure level at the source is not relevant.

Directivity of Pickleball Courts

Spendiarian & Willis has measured many pickleball facilities over the last 10 years with specific emphasis on the impulsive sound produced by the paddle impacts that is invariably the source of noise complaints and has consistently found the sound radiated from the paddles to have directional characteristics. MD Acoustics disputes this claim on a theoretical basis.

Dipole directivity would only apply at low frequencies and at the acoustical nearfield (e.g. short distances) from the pickleball paddles. To determine whether a measurement is in the nearfield or farfield, multiply the acoustic wave number (k) by the distance between source and receiver (r). If the kr product is much greater than unity, then the measurement is considered in the farfield and drops off as a monopole ($1/r$) with uniform directivity. If kr is much less than unity, then the pressure amplitude falls off as a dipole ($1/r^2$) and exhibits a figure-eight directivity pattern. For a peak frequency of 1 kHz at a distance of 25 ft, kr is approximately 140, i.e. $kr \gg 1$. Therefore, radiation from the pickleball paddles, even if they exhibit dipole behavior in the near field, is best characterized as monopole radiation as MD indicated in their original report. [Response to Comment 2]

A complete discussion of the errors and misunderstandings of the physics of sound in this one paragraph would fill many pages. Comment here will be limited to the directivity of the pickleball paddles as it is important to predicting the sound pressure levels surrounding the courts.

In the analysis of acoustical sources, sources having a radiation pattern that is not uniform in all directions is often approximated using a combination of simple sources. The basic building block of simple sources is the monopole source. A monopole is a hypothetical, infinitesimally small spherical source that radiates sound equally in all directions as shown by the red dot in Figure 1. It has waves radiating outward with oscillating positive and negative sound pressure, shown in white and gray, in concentric spherical wavefronts.

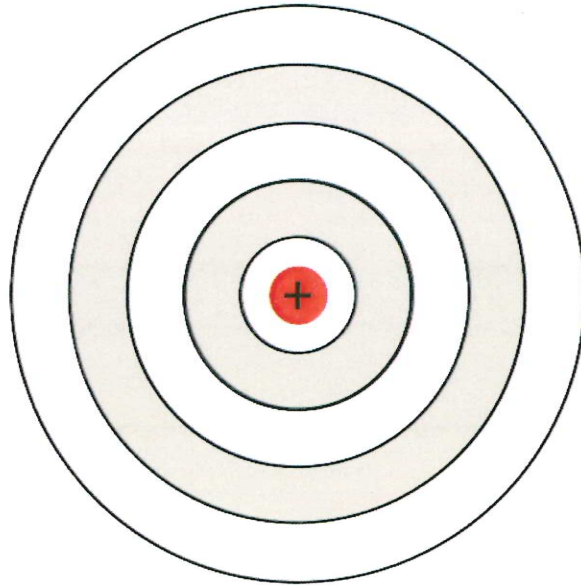


Figure 1. Monopole Sound Source

A dipole is a combination of two monopoles having opposite polarity as seen in Figure 2. Contrary to the assertion by MD Acoustics that dipoles only exist in the nearfield and at low frequency, it should be apparent that all points on the dashed line in the figure, being at equal distance, but receiving sound pressure of equal but opposite amplitude from each monopole source, will sum to zero regardless how far one is from the dipole source or its frequency.

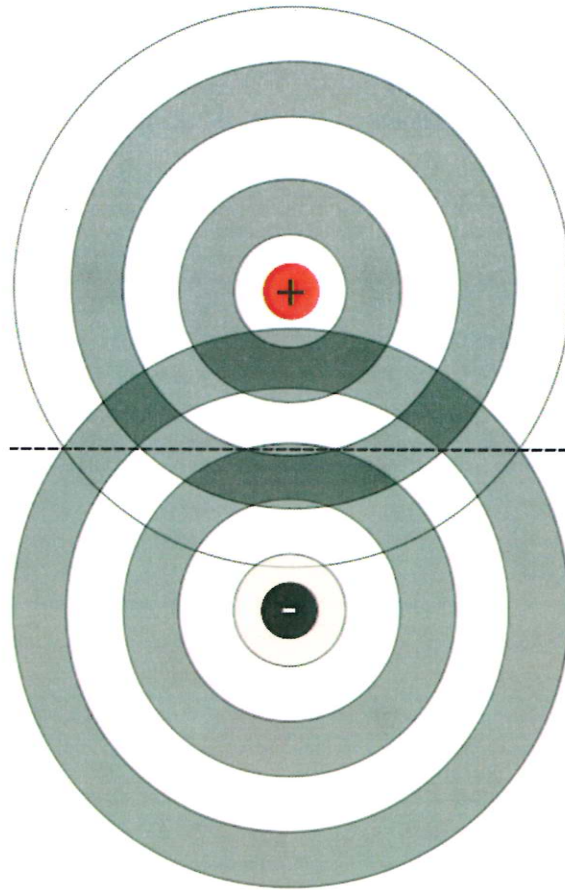


Figure 2. Dipole Sound Source

A pickleball paddle can be approximated by a simple dipole source. The paddle radiates sound through vibration of its surface. The front and back paddle surfaces are coupled by a honeycomb structure that stiffens the paddle. Because of this coupling, the front and back of the paddle move together in the same direction. As one side compresses the air in front of it, the other side rarefies the air at its surface. This results in the positive and negative sound source configuration in Figure 2 where the dashed line can be thought of as the surface of the paddle increasing the separation of the two monopoles and thus the radiation efficiency of the paddle.

The attenuation of the dipole radiation pattern is shown by the dashed line in Figure 3. The dashed line in Figure 2 lies along the 90° and 270° directions. This is referred to as the null of the dipole, that is, the direction of least sound radiation.

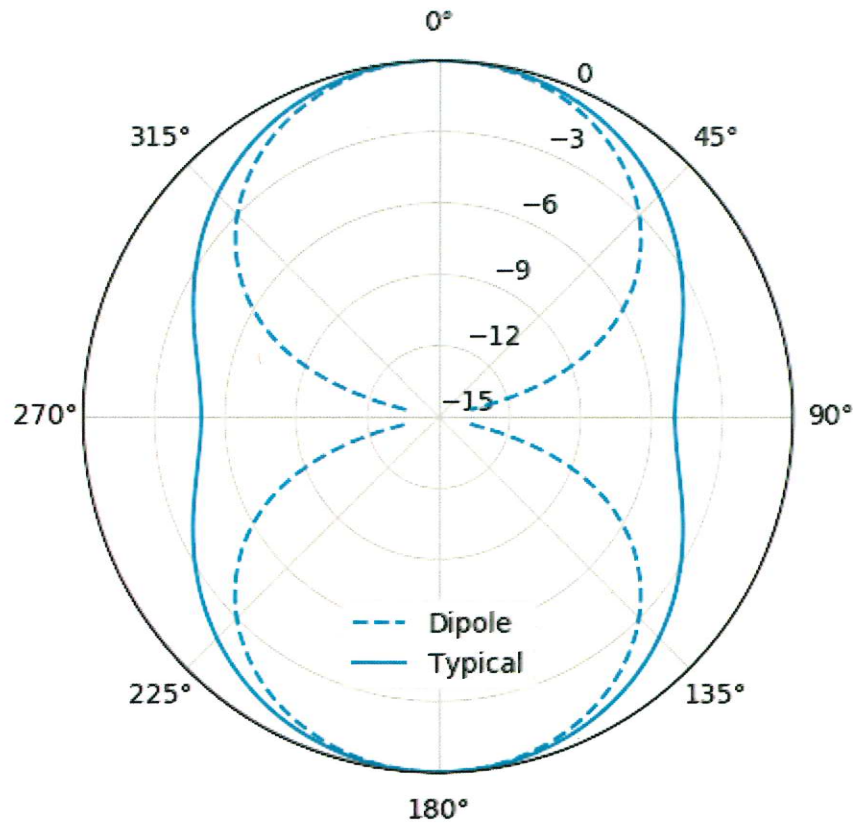


Figure 3. Directivity Patterns of an Ideal Dipole and a Typical Pickleball Court in Decibels

On a pickleball court there are multiple paddles hitting the ball in different directions; however, the object of the game is to hit the ball over the net so paddle orientation for each hit is not completely random, but is generally facing in the direction of play. The result of these small variations in paddle orientation can be seen in the solid line in Figure 3. Here the null depth is not as pronounced as it is with the ideal theoretical dipole. Measurements of many pickleball courts performed by Spendiarian & Willis have shown, however, that the depth of the null is typically about five dB for a single court.

Practical examples of dipole sources and receivers operating in the farfield include crossed pairs of bidirectional microphones used for making stereo recordings, a loudspeaker that is not mounted in a cabinet, or an electric guitar amplifier with an open back cabinet. The combination of two subwoofers with the same polarity with a third of opposite polarity, i.e. a dipole plus a monopole, creates a cardioid directivity pattern whose null is in the rear-facing direction. This is useful for containing the sound of subwoofers within a space such as an amphitheater to reduce noise complaints from neighbors.

Effects of Pickleball Directivity on Measurement and Planning

The testing performed on site by MD Acoustics consisted of a single field point next to the existing pickleball courts [MD Acoustics, May 2019, Exhibit C]. The measurement point selected was near the null in the directivity pattern illustrated in Figure 3 and therefore would have had the least contribution from the paddles impacts even if this component of the sound had been analyzed. Because the impulsive nature and directivity of the paddle impacts have not been considered in either the measurement of the existing courts or the acoustical model used to predict the sound pressure level of the new courts, the sound pressure levels have been substantially underestimated, most especially to the north across Village Parkway.

Figure 4 shows sound pressure level contours for the current Trilogy site plan consisting of six dedicated pickleball courts and four shared use courts on the adjacent tennis court. Spendiarian & Willis has not been permitted on site to conduct independent testing. The figure shown is based on measurements of pickleball courts at a different site with adjustments applied for impulsiveness and time of day in accordance with ANSI S12.9 Part 4. Full details of this analysis can be found in a separate report [Willis, February 2020].



Figure 4. Adjusted Sound Pressure Levels for Trilogy Plan

This site plan includes an eight foot sound wall on the east side of the dedicated pickleball courts. Note, however, the oblong shape of the sound pressure level contours on both sides of the courts and the extent of the contours to the north and south.

Conclusions

The primary noise-related concern of the neighbors, the impulsive sound of the impact of the pickleball and paddle, has not been assessed. Section 42-64 of the Gilbert Town Code has not been applied. This section of the Code gives the Town discretion to select an assessment methodology that accurately predicts community response to impulsive sound. From the beginning of our involvement with this noise dispute, Spendiarian & Willis has urged Trilogy

and the Town of Gilbert to take this step and use a more accurate methodology for assessment of impulsive sound such as ANSI S12.9 Part 4 so that a responsible noise abatement plan can be developed and pickleball can added to the sports center in way maintains the peace and quiet of the community.

The addition of pickleball represents a significant change in the amount of sound entering the surrounding area in comparison to other activities typically found at recreation centers and parks. This must be carefully planned for. It is, however, possible to create a reasonable noise abatement plan for the inclusion of pickleball at this site. Such a plan has been created and is presented in a separate report by Spendiarian & Willis [Willis, February 2020].

Understanding the directivity of the paddle impacts is important for measuring sound from pickleball courts, predicting the sound produced by new proposed courts, and in selecting the best orientation of the courts to minimize the impact on neighboring properties. The current noise impact study and abatement plan has not taken this into account and has underestimated the impact of the pickleball courts on the surrounding homes. The buffer distance and sound wall system currently planned for the pickleball courts will not be sufficient to shield the surrounding homes.

Finally, a comment on the purpose of noise abatement planning.

The purpose of the sound study was not to eliminate complaints but to ensure the pickleball courts comply with the municipal code. [MD Acoustics, July 2019, Response to Comment 13]

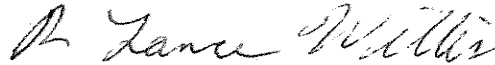
The purpose of having neighborhood meetings to discuss proposed changes to a site in the community is to provide a forum where all concerns can be heard and addressed. The goal of the process is create a plan that everyone in the community can accept and live with. Building a site in a way that is assured to generate a continuing stream of complaints from neighbors does not benefit anyone, especially the owners of the site.

The noise impact study prepared by MD Acoustics has not addressed the concerns of the neighbors, nor has it included Section 42-64 of the Gilbert Town Code. This has resulted in the predictable resistance when the concerns of the people most affected by the proposed changes in their community are systematically ignored and dismissed.

An alternative site plan consisting of eight dedicated pickleball courts in the center of the sports center, maximizing the buffer distance to homes and including an encompassing sound wall system, has been proposed. In the interest of bringing this project to fruition and making pickleball available to the community at Trilogy at Power Ranch while maintaining the peace

and tranquility of the neighborhood, we hope that this Compromise Plan will be given consideration.

regards,

A handwritten signature in cursive script that reads "R. Lance Willis".

R. Lance Willis, PhD
Principle Acoustical Engineer

References

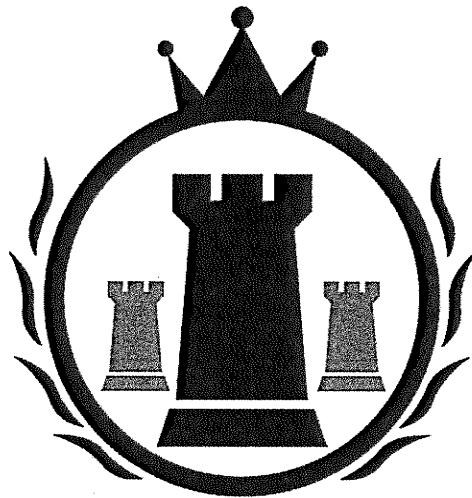
MD Acoustics, "Trilogy at Power Ranch Pickleball Court – Noise Impact Assessment – Town of Gilbert, AZ," May 28, 2019.

MD Acoustics, "Trilogy at Power Ranch Pickleball Court – Noise Impact Assessment – Town of Gilbert, AZ – Response to Comments #1," July 9, 2019.

Overcash, Philip A., "Concerned Homeowners of Trilogy at Power Ranch, Re: Noise Abatement at pickleball Courts, Our File No. 001253.1." Provident Law, June 21, 2019.

Schultz, T. J., "Synthesis of Social Surveys on Noise Annoyance," Journal of the Acoustical Society of America v. 64, pp. 377-405, 1978.

Willis, R. Lance, "Trilogy at Power Ranch Pickleball Sound Assessment: Comparison of Proposed Site Plans," Spendiarian & Willis Acoustics & Noise Control, February 4, 2020.



PROVIDENT LAW

Exhibit 4



CARPENTER HAZLEWOOD
Carpenter, Hazlewood, Delgado & Bolen, LLP
ATTORNEYS AT LAW

PHOENIX
1400 East Southern Avenue, Suite 400
Tempe, Arizona 85282-5691
T 480-427-2800
F 480-427-2801

Edward D. O'Brien, Esq.
Licensed in Arizona
e-mail: ed.obrien@carpenterhazlewood.com
direct: 480-534-4421

October 24, 2019

VIA E-MAIL: philip@providentlawyers.com

R. Lance Willis
Spendarian & Willis Acoustics & Noise Control LLC
4335 N. Alvernon Way
Tucson, AZ 85716

Re: Cease and Desist Acoustic Testing planned for October 26, 2019

Dear Mr. Willis:

This firm represents the Trilogy at Power Ranch Community Association ("Association"). On October 17, 2019, Philip Overcash advised this firm of your intention to perform acoustic testing at the Association's property on October 26, 2019. The Association wrote back to Mr. Overcash to decline the inspection, and sought confirmation that your attendance had been canceled. He did not respond. Therefore, the Association is sending this letter to you in the event that he did not communicate the Association's request that you not attend its Pickleball Charity Tournament on October 26, 2019.

The Association declines to invite you to attend the Association's October 26, 2019 Pickleball Charity Tournament to perform testing. This is not the proper time or forum for testing to occur. The Association may make arrangements for testing in the future, but it has not agreed to your attendance for testing on October 26, 2019. If you attend the Pickleball Charity Tournament for testing on October 26, 2019, the Association will have no choice but to ask you to leave or remove you, but the Association hopes that this letter will be sufficient to avoid that situation. The Association will be happy to arrange a date and time for testing to occur, but this charity event for local firefighters is simply not the forum. To be clear, the Association expressly refuses entry to you, Dr. Willis, or anyone else performing acoustic testing, to enter the Association on October 26, 2019.

ALBUQUERQUE • AUSTIN • DALLAS • DURANGO • PHOENIX • PRESCOTT
SALT LAKE CITY • SAN ANTONIO • SAN DIEGO • SANTA FE • TUCSON

CARPENTERHAZLEWOOD.COM
NATIONWIDE T 800-743-9324 • F 800-743-0494

In an abundance of caution, the Association also provides you with the warning that it will suppress from disclosure, in any legal forum, any testing that you perform during a trespass. The Association further warns that if you enter the Association to perform testing on October 26, 2019, you are acting in trespass pursuant to A.R.S. §§ 13-1502, 13-1503, and/or 13-1504, and the Association may be forced to remove you from its property pursuant to those statutes.

Thank you for your attention to this matter, and your anticipated cooperation.

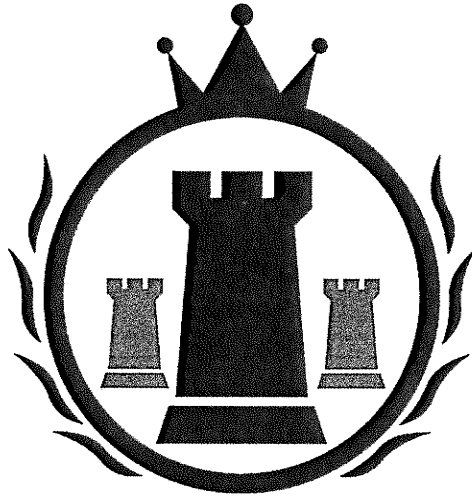
Sincerely,

A handwritten signature in black ink, appearing to read 'E. O'Brien', with a large, sweeping flourish extending to the right.

Edward D. O'Brien, Esq.

for

CARPENTER, HAZLEWOOD, DELGADO & BOLEN, LLP



PROVIDENT LAW

Exhibit 5

Philip A. Overcash

From: Bob Hartley <
Sent: Monday, February 10, 2020 1:14 PM
To: Philip A. Overcash; Christopher Charles
Cc: Ann Washington; File Clerk; Scott Bittner; .com
Subject: Fw: TRILOGY TENNIS and PICKLEBALL COMPROMISE

Philip,
Below is the email tht Chuck Meyer provided to the TOG on December 9, 2019 regarding the compromise plan. Hope this helps.

Regards,
Bob

----- Forwarded Message -----

From: Chuck & Patti Meyer <.com>
To: Jenn Daniels <jenn.daniels@gilbertaz.gov>; Catherine Lorbeer <catherine.lorbeer@gilbertaz.gov>; Amy.Temes@gilbertaz.gov <amy.temes@gilbertaz.gov>
Cc: Scott Bittner <.net>; Chuck & Patti Meyer <.com>
Sent: Monday, December 9, 2019, 03:33:45 PM MST
Subject: TRILOGY TENNIS and PICKLEBALL COMPROMISE

Charles N (Chuck) Meyer
4528 East Nightingale Lane
Gilbert, Arizona 85298

.com

December 9, 2019

Mayor Jenn Daniels
50 East Civic Center Drive
Gilbert, Arizona 85296

Dear Mayor Daniels,

Good Morning and Merry Christmas!

My name is Chuck Meyer and in addition to being a resident in Trilogy since 2005 I am also President of the Trilogy Tennis Club and more importantly have been a witness to the many questions and concerns about the proposed Tennis and Pickleball Complex. My letter today is to provide the Town of Gilbert a reasonable compromise plan to satisfy the many issues that make up this project. My background with over 30 years in the manufactured housing industry and more recently as General Manager for Pulte Homes responsible for long term warranty concerns specifically expansive and collapsive soils makes me uniquely qualified to discuss these matters.

I am scheduled to present the ideas to the Committee task by the Trilogy Board of Directors to review the Tennis and Pickleball Amenity on December 20, 2019 but wanted to take this opportunity to enlighten the TOG and specifically the Gilbert Planning Department of the many advantages this plan offers. Though the Trilogy

BOD has not been formally introduced to the Compromise Plan the several meetings that have occurred with impacted residents, Tennis Club and Pickleball Club members, a group of past Trilogy Board members have encouraged the presentation of this plan. Though there has been some objection to some elements presented in the plan overall with reasonable compromise hopefully the plan will be allowed to move ahead.

Please review a list of the advantages this Compromise Plan highlights:

- * This plan would provide a distance buffer as well as sound abatement walls as recommended by Dr. Lance Willis, Spendiarian and Willis Acoustics and Noise Control LLC, from the concerned homeowners that reside to the East side of the complex and as the result of the plans presentation and satisfies these homeowners concerns.
- * The plan has taken into consideration the current set back requirements of 25 foot for the new Court construction so the need for subsequent meetings with Trilogy lawyers and TOG Planning to argue over variances has been resolved saving all much unnecessary time and effort.
- * The two new Courts as approved in the Trilogy Expansion Vote of 2014 will be constructed on both East and West side of Ranch House Road for the dedicated use of Pickleball servicing 32 players and the current Courts 1, 2, 3, & 4 will be used exclusively for Tennis allowing 16 players to play.
- * Viewing for the Sporting Events would be satisfied using a combination of architectural pavers and landscaping along both sides of the new courts providing a satisfying parklike drive into Trilogy for golfers, visitors and residents.
- * And an additional bonus that this Compromise Plan offers is the savings of over \$150,000 in courts construction using state of the art Post Tension concrete overlays on Courts 1, 2, 3 & 4 in lieu of demolition and building new courts and further cost savings in pathway lighting sidewalks and landscaping the would not need replacement saving an additional \$50,000.

So in summary this plan has attempted to take into consideration the expressed concerns of many Trilogy residents and hopefully by resolving these concerns will be allowed to move forward. The intent of my letter has been to illustrate that there is another plan that though not perfect, represents a reasonable compromise for a very difficult problem and hopefully would be considered before any current plan is allowed to move forward.

Thankyou for your consideration,

Sincerely,

Chuck Meyer

Note a drawing of the Compromise Plan will follow this e-mail